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AGRICULTURE AND ITS CHANGING ROLE IN PERU'S NATIONAL ECONOMY

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A. History and Current Status

While during the 1950's and 1960's Peru's agricultural sector performance was ocassionally exemplary, since the 1960's the Peruvian agricultural sector has not been able to keep pace with increasing population rates. Comprehensive studies completed in the late 1960's predicted that the food supply situation would deteriorate. Results worse than the "worst case scenario" predicted, actually materialized. During the next decade, agriculture performance declined rapidly. The decline combined with increased exodus from the rural to urban population centers and required the government to import massive amounts of food.

The decline of agricultural performance began somewhat gradually in 1964. It was not until the 1970's that it declined dramatically. This trend continued until 1980. Of all AID assisted countries within the region, the decline in the average annual growth rate for agriculture was most severe in Peru from the decade of the 1960's to that of the 1970's . During the years 1969-75 annual growth rate in the agricultural

1979 it had declined to 12.6% of the GDP. However, unlike most countries early indications were that this trend was beginning to be reversed. From 1980-82 an increase was recorded, and by early 1983 (prior to the disastrous climatic changes) it was predicted that this increase would continue.

As noted in Table 2, while the other economic sectors stayed flat or stagnated, the sector that has increased consistently since 1980 has been agriculture. The exceptionally dramatic 12.8% turn around in 1981 can be attributed partially to a response to the drought induced low production levels of 1980 (even so, production between 1979 and 1981 showed a 4.5% increase). Several IDB, IBRD and USDA reports express the belief that new governmental policies had a substantial role in sparking this upsurge.

Figure 1 illustrates production trends of seven food staples which account for two-thirds of caloric intake over the period 1969-83. Production of these basic foods declined from 1970 to 1980 and as compared to prior levels. One thesis presented below is that for a variety of reasons, land use efficiency deteriorated between 1970 and 1980.

Although total land area under cultivation had gradually increased until 1970 (the year after the agrarian reform program was initiated), thereafter,

Table 1. GDP Annual Growth by Sectors

Sectors	Years		
	81/80 1/	82/81 2/	83/82
Agropecuario	12.8	3.5	3.5
Pesca	-12.3	-2.0	-8.1
Mineria	- 4.4	6.1	0.8
Manufactura	0.1	-2.7	0.0
Construccion	11.0	2.3	-4.0
Gobierno	2.3	2.0	1.0
Otros	3.8	0.4	0.4
P.B.I.	3.2	0.7	0.5

1) Source: BCR. Nota Semanal No. 10/1983

2) BCR estimates subject to modification

With the exception of the most recent years, the last two decades have seen agriculture's share of Peru's GDP gradually decline. The agriculture portion of the GDP in other, poorer countries - particularly the poorest ones studied - has been about 15 to 20% higher than Peru's. This is attributed principally to the major role of the mining and government sector in Peru in comparison with most LDCs. Whereas in 1960, agriculture had 18% of GDP (lowest except for Jamaica of the LAC countries), in 1970 it was 14.8% and in

sector declined to a level of 2.1% and between 1976 and 80, fell to .06%. The recovery beginning in 1980 has been in sharp contrast to the above figures, Whereas during 1981 and 82 the national GDP increased by 3.9% and .7% respectively, the agriculture sector increased by 12.8% and 3%. This considerably surpassed the 2.3% annual increase observed during the decade 1970-79. The initial estimate for 1983 was to be more of the same for agriculture and a general worsening trend for the economy as a whole. Refer to Table 1. For the three years 1980-83 average growth surpasses the average level recorded during the early 1960s.

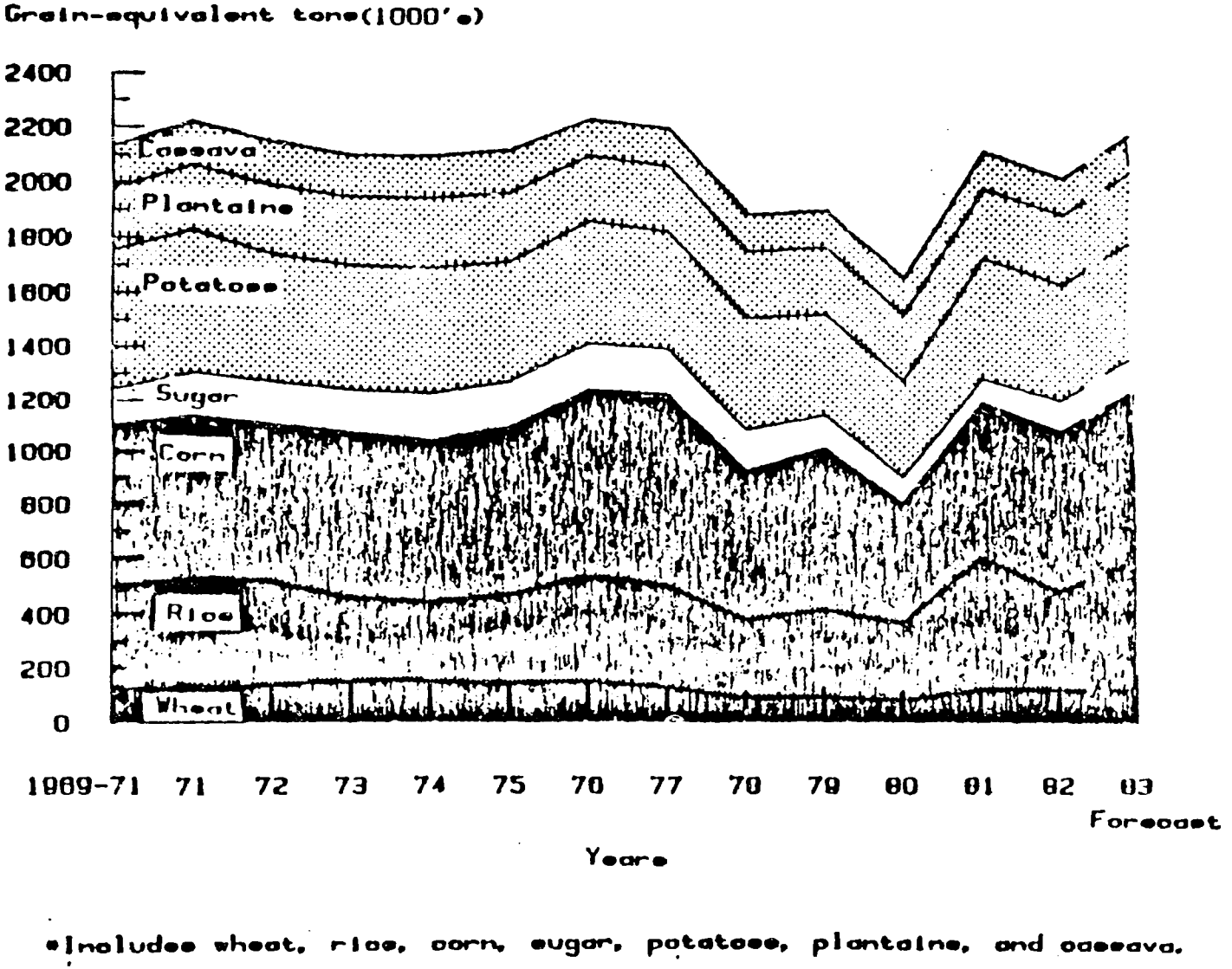
Table 2. PRODUCTO BRUTO INTERNO POR SECTOR ECONOMICO;

COMPOSICION Y CRECIMIENTO, 1973-1980

	A. Sectores Productivos Básicos						B. Otros Sectores				C.Total
	Agricultura	Pesquería	Minería	Manufactura	Construcción	Total	Empresa de Serv.Público	Vivienda	Gobierno	Otros	C.Total
1. Composición: Total PBI = 100.0%											
1973	13.6	0.8	7.1	25.2	4.6	51.3	1.1	3.9	7.9	35.8	100.0
1974	13.0	1.0	6.9	25.3	5.2	51.4	1.1	3.7	7.6	36.1	100.0
1975	12.7	0.8	6.0	25.7	5.9	51.1	1.1	3.7	77.7	36.4	100.0
1976	12.7	1.0	6.3	26.0	5.6	51.6	1.1	3.7	7.6	36.0	100.0
1977	12.9	0.9	8.1	24.6	5.2	51.7	1.2	3.9	7.9	35.3	100.0
1978	12.7	1.2	9.5	24.1	4.5	52.0	1.3	4.1	8.0	34.6	100.0
1979	12.6	1.3	10.1	24.1	4.5	52.6	1.3	4.1	7.7	34.3	100.0
1980	11.6	1.2	9.5	25.0	5.1	52.4	a/	a/	6.6	40.0	100.0
1981	12.8	1.	8.7	23.9	5.4	51.	a/	a/	7.5	40.4	100.0
1982	12.9	1.	9.2	23.2	5.7	52	a/	a/	7.4	40.5	100.0
1983 1/	13.4	.8	9.1	23.1	5.4	51.8	a/	a/	7.7	40.2	100.0

1/ 1982 Estimates.
2/ Items included in others since 1980.
a/ Since 1980, Empresa de servicio publico y and Vivienda were transpased to Otros
Source: ONE

Commodity Composition of Food Staple Production in Peru*
1969/71-1983



*Includes wheat, rice, corn, sugar, potatoes, plantains, and cassava.

Source: USDA IED Staff Report. Peru's Current Food Situation and 1983 Food Aid Needs.

Table 3. Land Areas Devoted to Cultivation of 21 Principal Crops (000 has.)

Year	1962	1966	1970	1974	1978	1982
Land under Cultivation	1,554	1,646	1,735	1,644	1,550	1,617

Source: OSE

The principal indicator of land productivity (so important in Peru given its limited available arable land base) relates to yield data by crops over time. When this data is compared with the cultivated land information in Table 3, a more distressing explanation of the dramatic decline in the agriculture sector is provided. Looking at aggregated yield data from 1963 for such basic crops as rice, maiz amilaceo, wheat, potatoes, beans, cotton, coffee and sorghum reveals that from the period 1971 to 1979, yield levels never approached the three year average of 2.8% increase recorded between 1968-70. In addition, for all crop yields, figures during the 1970s were consistently at the same level or below the yields recorded for 1962-65. Refer to Table 4.

Table 4. Yield of Principal Agricultural Crops 1962-83 - % Increases by Three Year Intervals

Years	1962-64	1965-67	1968-70	1971-73	1974-77	1978-80	1981-82	1982-83
% increase over preceding 3-yr period	.7	2.3	2.8	.7	-7	.7	29[a/]	1[b/]

Source: OSE.

a/ Productivity considerably improved due to improved weather and policies.

b/ Combined yield increase from irrigated and rainfed rice, baley, maize duro and amilaceo, wheat and potatoes only, over one year period.

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Except for maize, in all instances the yields reported in 1967 surpassed considerably annual yields reported during the entire period 1968-1980.

The tremendous decline in agricultural productivity during the period 1968-79 coincided with two major interrelated developments: 1) a large out migration to urban centers where in most cases fulltime employment was not found and which required very high government expenditures for supporting urban infrastructure and supplies of basic foods, and 2) a growing dependence

on importing progressively larger quantities of food at times when balance of payment levels were unfavorable (Review Table 5). As observed in Figure 1, it was not until 1983 that food import needs were expected to decline. Even with this large injection of food imports, per capita intake has remained below the levels reported a decade earlier. Caloric intake is now at the minimum WHO recommended levels.

On the positive side, resulting from a whole range of policy and institutional reforms, many forecasters are predicting a dramatic turnabout in agricultural peformance. Impressively high growth rates have been predicted and, if these forecasts come to fruition, agriculture will be one of the strongest pillars of the Peruvian economy. The 1982 USDA International Economic Division Staff Report concluded that improved policies combined with normal weather "would have a noticeable impact on area and yields. With it, production gains of a least 5% a year for the next 2-3 years are not unreasonable". During the same period another USDA report stated that due to the progres reported, "no food aid is likely to be needed to maintain the food status quo...". The January 1983 Foreign Economic Trends Report concluded, "Growth in agriculture -- still recovering to the production level it had in the early 1970's -- will be the foundation upon which national growth will be based."

Table 5

Peru: Agricultural Product Imports, Value
(Millions of Current U.S. Dollars) and Volume (Thousand Metric Tons)
Average 1970-74 and 1975-79 and Annual 1980 and 1981

Product	Average 1970-74		Average 1975-79		1980		1981	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume
Wheat	73	739	197	767	141	823	167	946
Maize and Grain Sorghum	10	144	29	234	67	485	48	344
Rice	n.a.	-.-	29	98	64	181	68	142
Sugar	-.-	-.-	-.-	-.-	32	46	98	149
Soybeans	n.a.	7	7	31	-.-	-.-	-.-	-.-
Beef[1/]	15	17	5	7	n.a.	n.a.	n.a.	n.a.
Milk Products	21	28	23	30	43	39	46	29
Vegetable Oils	21	62	34	58	24	40	30	61
Total	140		234		371		457	

1/ Includes offals and variety meats.

Source: ENCI and Central Bank.

Peru's Central Bank and World Bank estimates predict that the agriculture sector growth rate between 1980-85 would expand at an average annual increase of 4.6%

Over the last months, however, devastating floods in the north and spreading drought in the south have seriously affected agricultural production and supporting infrastructure. The extremely positive predictions noted above (and rarely observed in international agriculture) will probably have to be reassessed. Puno and Piura are the two areas in which agricultural production has been seriously affected. The current estimate (May 20) is that Peru lost around $738 million as a result of these natural disasters. A breakdown of the estimated damages is as follows:

	Damage Estimate ($ millions)
Petroleum Production Lost	250
Petroleum Infrastructure Damage	60*
Agricultural Production	170

Other Infrastructure	
(1) Roads and Telecommunications	115*
(2) Housing and Urban Services	105
(3) Agricultural Infrastructure	28
(4) Other	10
TOTAL	$738

*Some degree of double-counting possible

The positive outcome of all this is that due to the excessive rain in the north, sub-surface water levels have risen to the highest levels ever recorded thus permitting bountiful water at low cost for many years.

B. National Politics and Agricultural Transformation

During the period of the military government, Peru's world leadership in outstanding yields for crops such as cotton, sugar cane, rice, certain fruits and vegetables was lost. Throughout most of this period increasing amounts of land were removed from production. Land productivity declined to its lowest levels in recent history. Many of the present problems associated with agriculture and the rural sector are due largely to the impact of a series of cumulative adverse factors arising basically from a maladministered, sweeping

land reform and stringent economic control measures, as well as a major drought during the latter part of the decade in important production areas.

During the 1970's, government policies were not conducive to efficient use of production resources. During that period, approximately 10 million has. were transferred to almost 400,000 families, 40% of the total number of farm families in Peru. (Refer to Table 6.) All but 1.5% of these families became affiliated with some form of associated or cooperative ownership organization. As a result, an impressive number of major crops are now produced by cooperative and associative ownership units (See Table 7.)

In 1969 there were 190 agricultural cooperatives (10 production and 180 service) by 1980 there were 624 production cooperatives and 380 service cooperatives. In 1982, agricultural cooperatives owned 60% of the agricultural land and produced 40% of total output. Most of these organizations can be characterized as poorly managed, lacking sufficient technical skills, under-financed, and generally, in financial and economic trouble.

The implementation of the 1960 Agrarian Reform Law first limited the size of individual holdings to a maximum of 150 ha. As this law was implemented, it became apparent that there were an insufficient number of farms 150 ha. or larger in size to benefit the large number of rural workers and landless farmers originally programmed to become beneficiaries. In rapid succession, the size of the maximum holdings was reduced to 100 and later to 50 ha. Again finding insufficient land, within three years, over 98% of private holdings of 10 or more ha. were expropriated.

Many of expropriated farms had previously been associated with viable farmer producer regional organizations representing commodity lines. Many of these organizations had well-managed experiment stations that produced certified seed, developed new varieties, undertook biological pest control research,, and introduced appropriate farm machinery.

As state-appointed managers and administrators began to take control of newly-created enterprises, many made inappropriate investments in machinery and other inputs, instituted poorly conceived or unethical financial management systems, and in general provided inadequate administration.

TABLE 6: RESULTS OF AGRARIAN REFORM

	Ley No. 15307 (1965)	D.L. 17716 (1975)
TOTAL CAMPESINO FAMILIES IN PERU		
Number	781,450	1'019,800
%	100%	100%
FAMILIES BENEFITTED		
Number	14,605	399,576
%	1.9%	39.2%
FAMILIES NOT BENEFITTED		
Number	766,845	620,224
%	98.1%	60.8%
TOTAL LANDS TAKEN		

1962-69	1,027,649 has.	-
1970-80		10,601,633 has

Sources: Ministerio de Agricultura - DGRAYAR 31 Oct. 80.

and EL AGRO PERUANO 1970-1980: Análisis y Perspectivas

Appropriate executive and tehnical management skills were lacking for the radical change and challenge of administering the large new cooperative/associative enterprises. Indebtedness levels throughout the sector grew rapidly.

A one possible benefit of the reform is that where land was sub-divided and entered family scale production, on-farm consumption probably increased. As a farm family becomes the manager of its produce, consumption may increase and nutrition levels improve, while decreasing marketed produce.

Although government investment in agriculture increased over two decades from 8% of the national budget during the period 1960-67 to 10% from 1975-78, in real terms, this represented a 5.5% annual decline. Technical agriculture considerations were de-emphasized considerably. Agriculture research was reduced from 2.3% of the MinAg budget to the point that the average annual change from 1970-80 was -4.5%. Most of the total MinAg budget was directed to supporting the large increase of public servants employed to implement the agrarian reform program (mainly mid-to-low level personnel as the number of more qualified people declined considerably), and to finance the construction of large scale irrigation projects. Of the Ministry of Agriculture's 1976 investment budget for ongoing projects and projects under-study ($1.6

billion), almost all was programmed for irrigation projects. Only $7 million was scheduled for small scale irrigation. Of the irrigation projects under construction, 96% of the increased cultivable area was for the coastal region.

Crop and livestock development were further disrupted by the creation of a broad range of para-statal institutions designed to implement a series of inconsistent policies, regulations, price controls and subsidy programs. Traditionally, the Peruvian government had controlled rice, bread, and milk prices. The list of commodites for which producer and consumer prices were affected was expanded considerably to include fertilizer, cotton, coffee, sugar, maize, wheat, edible oils, dairy products and imported feed grains.

The GOP incentive structure supported industrialization. Fiscal policy supported this sector at the expense of agriculture. No incentive was directed to export of agricultural based products. The social/political aspects of agriculture were emphasized and not the economic and resource use efficiency aspects.

For all practical purposes, public and private sector capability for agricultural research and technology transfer disappeared. Weak and ill conceived technical and management support systems were developed.

Discouragement and de-emphasis of essential technical agriculture skills produced a brain drain of professionals who here-to-fore had been regarded as one of the hemisphere's best professional agriculture cadre. The exodus of professional agricultural cadre over a decade long period resulted in a tremendous quantitative and qualitative deterioration within the agricultural research, extension, and education systems. In 1980 Peru' had the lowest ratio of advanced degree scientists in agriculture research in relation to farmers in the hemisphere; except for Bolivia, the lowest number of agricultural scientists per 1,000 ha. of arable land; and except for Honduras, the smallest number of research stations per number of agricultural workers.

During the military government, 40% of Peru's university level research staff emigrated, the worst case being the National Agrarian University where its highly regarded cadre of MS and Ph.D. scientists was reduced by 50%. The critical mass required to produce appropriate technologies and management skills needed for the revolutionary undertaking of large scale agrarian reform was reduced to a level insufficient to meet the problem. Manpower training did not offset the brain drain exodus. For example, during the period 1964-70, AID (the principal supporter of human resources development in the sector) had trained 104 MS and Ph.D's, and during 1971 to 1980 the level dropped to 35.

The Constitution guiding the present democratic government singles out agriculture as the priority sector of the Peruvian economy. The government is committed to promoting economic efficiencies through deregulation of the economy and, in general, reduction of state participation in the economy. The 1981 Agricultural Promotion Law established significant incentives for new investments in agricultural production, agro-industry, price support systems for agricultural commodities, and a restructured Ministry of Agriculture to strengthen public sector capacity for promoting research and extension. The law also provides for the parcelization of the cooperative production organizations when members collectively decide to do so.1/

To stimulate the lethargic agricultural sector and reduce the large level of consumer food stuff subsidies (1981 estimate of $135 million), the government lowered duties on a whole range of agricultural commodites and equipment, expanded significantly agricultural credit to meet growing demand for working and investment capital, devalued the sol, and tried to gradually bring food prices more in line with production costs. Numerous price controls on other basic commodites were dropped although price controls remain in

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1/ Presently, approximately 24% of the total arable land is operated by individual producers who provide 47% of total value of production.

effect on rice, low cost bread, evaporated and recombined milk, eggs and chicken, For example, prices controls were released on beef, wheat, flour, edible oils, pasta and all bread, and more recently the subsidy on the latter was eliminated. In November 1982, a decree eliminated 5-10% CIF import duties on livestock intended for breeding and for seeds. Subsidies for wheat producers were reduced by 50% from 1981 to 1982. During 1983, the government decreed free trade on cotton and reduced the export tax on sugar to 1%. Whereas before ENCI was the monopoly coffee exporter, private traders now can export within the limits of Peru's coffee quota established by the International Coffee Organization, and the coffee export tax has been lowered from 8 to 4%. In early 1983, a law was approved to exempt agricultural machinery, equipment, tools, vehicles, and irrigation equipment, from import duties (5-20%) and from a sales tax of 16% and private fertilizer trade was authorized in January 1983.

Over the last decade, the Ministry of Agriculture has gone through several dramatic reorganization exercises. Within the last five year period (once during the present government), there have been three major reorganizations. During the military government a series of extremely time consuming bureaucratic procedures were instituted which tend to stifle dynamic operations. Downgrading the role of (and exodus of) agricultural

professionals directly affected key resulting functions, such as statistics, sectoral planning and research. Although a small cadre of dedicated professionals remain from the earlier period, because of the pathetically low salary structure, most are demoralized, moonlighting and looking for employment elsewhere. The critical mass of technical, analytical and managerial skills required to develop more appropriate policies and to help manage and implement development programs does not exist.

ENCI - the agency with the most diversified intervention in the agricultural market probably is not slated for extinction. However, beginning January 1983, its functions were diminished considerably as commerce in fertilizers, cotton, coffee and maize were opened to the private market.

Among the most important long run institutional changes undertaken by the present government in the agricultural sector was the creation in July 1981 of the National Institute of Agricultural Research and Promotion (INIPA). Although considerable donor assistance has been provided to support this effort, the re-establishment of high-quality agricultural research and extension service of the types observed during the mid 1960's, will take some time 1/. Effective re-building of this vital support service is just now getting underway. Considerable attention will be required to develop, train and disseminate the broad range of agricutural skills that Peruvian farmersare lacking.

In addition, the large number of geographic and commodity specific

producer associations, which prior to the military government had been effective in carrying out a wide range of research and extension activities, are now being encouraged to re-establish their important support activities.

The Agrarian Bank (BAP) is virtually the only formal source for agricultural credit. It is serving less than 10% of the 1.5 million farm units in Peru and even then, it provides essentially only production credit. Loans by the BAP had been growing at a real annual rate of more than 4% from 1970 to 1974. Along with other public resources for agriculture, BAP agricultural credit declined from 1975 to 1979 at an annual real rate of 8%. Crop loans continue to concentrate largely on cotton, rice, sugar cane,

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1/ International experience in agricultural research has demonstated that a nation can earn a return far higher in this activity than any other. By international standards Peru is still not making sufficient investments in research.

maize, and potatoes (87% of total lending). There has been a noticeable increase in credit for livestock, mostly beef. From 1980 to 1981, BAP lending dramatically increased (from $493 to $691 million). Credit availability remains, however, a major constraint for expanding agricultural production. Two-thirds of agricultural credit continues to be used to keep afloat the production activities of the reformed sector.

From a regional investment perspective the present government has continued, but at a much slower pace, the construction of the large coastal irrigation projects. It has placed the highest priority and made massive investments in support of development in the high jungle area. These investments usually have been in the form of comprehensive area development projects which are not managed directly by the MinAg. Accordingly, these projects do not appear in the MinAg budget. MinAg's original 1983 investment budget was $231 million, of which 7% - a figure higher than what was provided in the pre-military government era - was designated for research, 50% is to continue large coastal irrigation projects initiated earlier (a total of 78% is for large and small irrigation projects).

The coast absorbs 67% of the MinAg investment budget of $32,670,000, mainly directed to large irrigation projects. However, in terms of new

initiatives, the sierra receives 38% of the budget, the coast 35% and the selva 25%.

A recently announced Plan Sierra program has been presented by the MinAg. This effort does not bring additional financing to the region, rather, it is a recombination of existing projects in the sierra under a single name. This is intended to improve agricultural productivity through the intensification of agriculture to generate increased employment and incomes and to reduce destruction of the natural resource base.

C. Population and Employment Trends

The Peruvian population is currently estimated at 18.3 million. According to census figures, the population grew at an average yearly rate of 2.9% between 1961 and 1972, and by 2.6% between 1972 and 1981. This rate is one of the highest in Latin America. A simple comparison of average annual food production increases between 1970-79 (2.3%) with population growth rates explains why food imports have grown so dramatically and why nutrition levels have deteriorated.

During the same period, Peru underwent an urban-directed migration of major proportions. Whereas the 1961 census noted 53% of Peru's population as rural, by 1981, approximately two thirds of the population was "urban". (Observe Table 8).

Table 8. 1981 Population, (000s)

Peru Population	17,031.2
Urban	11,085.9
Lima/Callao	4,426.1
21 cities 50,000 to 499,000	2,983.9
31 cities 20,000 to 49,994	925.2
284 towns	1,612.5
Towns less than 2,000	1,138.2
Rural	5,945.2

Peru's broad definition of urban population, (which includes all district capitals and all settlements with over 2,000 families) is somewhat

misleading. During the census it was observed that 58% of the district capitals had less than the official 2,000 family "settlement" minimum population. To illustrate the serious under-counting of the actual rural population, if "urban" were defined as population centers of 20,000 and above, 51% instead of 33% of the Peruvian population would be rural. There is little doubt that although definition problems exist, population growth in the urban areas has continued at higher national costs, and at trends higher than what was predicted during the 1961 census.

During the period 1961-72 Peru's annual overall urban growth rate was at the extremely high rate of 5.1%. Lima alone grew at 5.4%. During the 1972-81 period, the urbanization rate declined remarkably to 3.6% which was the normal level of urbanization throughout Latin America during the last decade. One of the most dramatic consequences of the urbanization process is, according to a recent evaluation of 1981 census data by IBRD, that population growth has dropped to "just over 2%". The Bank attributes this dramatic decline mainly to falling birth rates in urban centers which it feels will dramatically change their development program projections. At the same time, in the sierra, which earlier was affected strongly by heavy outmigration, net population growth is very low, less than 1% per year.

According to recent but limited research by some demographers, recent migrants in at least some centers are now returning to rural areas in the sierra or seeking new opportunities in the selva.

Between 1970 and 1979, the agricultural labor force, as a percentage of total labor force, had declined from 45 to 41%. Agriculture is still by far Peru's largest employment sector. The non-agricultural labor force grew at an annual rate of 4.5% while the agricultural force grew at 0.9%. People were leaving the farm for non-agricultural pursuits.

In 1979, the total labor force was 5.4 million of which 2.2 million or 41% were in agricultural and 3.2 million were in non-agricultural jobs. Given the large population growth in "urban centers" at a time when economic growth performance was mediocre, insufficient jobs to meet the growing employment needs resulted. During the 1970s, open unemployment jumped from 4.6 to 7.1% of the total force with all of the increase coming from the non-agricultural sector. Under-employment, defined as working less than 35 hours per week or earning less than the minimum wage, rose from 46% to 51% during the period with most of this in the non-agricultural sector. Non-agricultural employment increased by almost 44% over the same period (Refer to Table 9). These figures suggest that the outmigration described above is more a reflection of

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TABLE: ~~T-13~~ 9

PERU - PROJECTED LABOR FORCE, 1970-79
(Thousands)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total Labor Force	4167.3	4281.0	4401.7	4534.1	4672.9	4817.5	4968.0	5124.7	5283.4	5441.9
Agricultural	1879.5	1900.8	1919.1	1936.1	1948.6	1955.9	1977.3	2003.8	2026.0	2042.0
Non-agricultural 1/	2287.8	2380.2	2482.6	2598.2	2724.3	2861.6	2990.7	3120.9	3257.4	3399.9
Employed	3971.4	4092.6	4215.6	4343.9	4486.0	4581.3	4709.7	4826.8	4940.0	5054.3
Agricultural	1873.6	1894.8	1913.0	1930.1	1942.8	1950.1	1971.4	1997.8	2019.9	2035.9
Non-agricultural 1/	2097.8	2197.8	2302.6	2413.8	2543.2	2631.2	2738.3	2829.0	2920.1	3018.4
Unemployed	195.9	188.4	186.1	190.4	186.9	236.2	258.3	297.9	343.4	387.6
Agricultural	5.9	6.0	6.1	6.0	5.8	5.8	5.9	6.0	6.1	6.1
Non-agricultural 1/	190.0	182.4	180.0	184.4	181.1	230.4	252.4	291.9	337.3	381.5
Underemployed 2/	1913.4	1900.8	1845.5	1872.7	1953.3	2042.6	2200.8	2465.3	2745.0	2797.1
Agricultural	1207.6	1209.4	1285.8	1266.2	1273.5	1333.4	1222.1	1243.4	1325.0	1296.7
Non-agricultural 1/	705.8	691.4	659.7	606.5	679.8	709.2	978.7	1221.9	1420.0	1500.4

1/ Includes unclassified activities

2/ Working less than 35 hours per week or earning less than minimum wage

Source: Ministry of Labor

an expulsion from agriculture rather than the attraction of non-agriculture employment opportunities.

The gainful employment of this large increasingly non-agricultural labor force is a tremendous challenge of national importance. Present high levels of unemployment and underemployment are not diminishing, particularly given the present economic problems. Meeting the challenge of providing the estimated 195,000 1/ to 238,000 2/ new jobs required each year, levels considerably above the more prosperous 1975-79 period, will be a herculean task. The type of capital intensive investments traditionally made in the manufacturing sector, and the absence of capital to invest in more labor intensive manufacturing and construction activities suggest dismal prospects. Further, the general lack of confidence investors have in the national economy does not inspire optimism.

1/ IBRD 1981 estimate for 1981-86.

2/ PADCO 1983 estimate for 1979-1990.

D. Land Resource Base and Use

Peru, with a total surface of 128.5 million has.(1,285,000 Km2) has a large physical resource base. ONERN has classified only 2.7% or 3.5 million ha. as suitable for intensive cropping use (classes I-IV). In addition, they classify 13% of the land as adapted for such permanent agricultural purposes as intensive orchards, pastures and forests, 23% with the potential for extensive pastures and forestry, and 35% as land suitable only for forestry purposes.

Peru's three major geographic, climatic, and ecological zones are marked by resource bases suitable for distinctive agricultural activities.

1. Costa

Although this is the smallest of the three regions (12% of Peru's land base) it has traditionally, from a production perspective, been the most important for Peruvian agriculture. Approximately 43% of the gross value of agricultural production is from this region. The major industrial crops - sugar cane, cotton, rice and maize are produced here, as are a tremendous array of high value commercial crops. Presently, 50% of the land suitable for

agriculture is under cultivation, almost all under generally high-cost irrigation systems. The principal water sources are the 52 rivers that cross the coast from their sierra points of origin. Of the 800,000 ha. under irrigation, 25 to 35% suffer from poor drainage and high salinity levels.

The degree of modernization on the coast as compared to other regions can be summarized by the following facts: 42% of the production units use improved seed compared with 16% and 12% respectively in the sierra and selva; 80% of the total fertilizer utilized is on the coast compared with 13% in the sierra and 6% in the selva; productivity of cropland is generally favorable when compared to more developed countries, and 75% of the coastal cultivated land received credit from the Banco Agrario as against 9% in the sierra and 16% in the selva. Nevertheless the coastal production units, particularly the CAPs are confronting a major economic crisis. Presently the coast contains 45% of the national population, 27% of the people living below the poverty level live there.

2. Sierra

The World Bank Agricultural Sector Update Report (1977) states that: "It is difficult to describe conditions in the sierra briefly and at the same time

adequately. It is safe to say that the country's future socio-economic stability will depend to a large extent on the type of action and programs undertaken in this region".

Almost 45% of the total population of Peru lives in the sierra which comprises 38% of the land base. This population receives less than 25% of the national annual family income. An estimated 75% of these sierra families depend directly or indirectly on agriculture for the major part of their livelihood. Approximately 172,000 (about 18%) of these sierra agricultural families are market-oriented small farmers, with from one to 20 basic irrigated hectare equivalents of productive land.[1/] Another 61,000 (approx. 7%) of the sierra agricultural families live and work on agrarian reform units, 345,000 (37%) live in campesino communities (most with usufructory rights to crop and natural pasture land on which they produce as individual farm families) and about 347,000 (38%) are landless or near landless (subsistence) agricultural laborer families with less than 5 gross hectares of land. Combined, these sierra families produce about two-thirds of the

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1/ The basic irrigated hectare equivalent is based on the following conversions: One basic irrigated hectare equivalent is equal to one irrigated hectare, 3 dryland arable hectares and 100 hectares of natural pasture.

domestically produced food stuffs consumed in Peru (almost all the wheat, 90% of potatoes, one-third of maize), more than three-fourths of the domestically produced livestock products consumed in Peru (80% of cattle, and all the 2.2 million alpaca and 1.5 million llamas) and over 40% of the total gross valueof agricultural production. Some 42% of the national poverty is located in the sierra.

Labor incomes for these families average less than one-third of those of coastal farmers and less than one-fourth of those of urban workers.

The sierra is characterized, in general, by low land productivity largely because of 1) a limited productive crop and pasture land base which is alrady over extended and subject to high levels of soil erosion; 2) high-risk climatic conditions; 3) use of traditional, principally rain fed production methods; 4) lack of required physical and institutional infrastructure to provide access to and make effective use of modern inputs, and to market increased output, and 5) price, storage, processing and marketing policies that impact negatively on the terms of trade between sierra agriculture and the rest of the economy. While these generalizations are true, it is also

true that Sierra potential frequently is underestimated. There are many areas where comparatively limited investments would show dramatic results in livestock, fruit, vegetable and traditional foods production.

Given the tremendous diversity of the Sierra, it is extremely difficult, if not impossible, to generalize. However, for illustrative purposes there are approximately 2.5 hectares of cropland per agricultural family in the sierra, of which nearly 40% is in short or long-term fallow at any given time. This high proportion of fallow reflects the low use of 1) modern production inputs, 2) soil and water conservation practices, and 3) intensive cropping systems. Only 20% (250,000 ha. of which 150,000 need rehabilitation) of the cropland is irrigated, with considerable portions of this being inadequately supplied with water. There are another 15 hectares of natural and improved (usually associated with irrigation projects) pasture land per agricultural family, with an average present livestock stocking rate of about one animal unit 1/ to three hectares of natural pasture or to one hectare of improved pasture.

1/ One animal unit calculated on the basis of one mature cow, 10 sheep or 5 auquenidos.

According to one expert on Latin American agriculture, application of current unused technology would increase yields of sierra crops by 20-30% and effective use of irrigation would increase yields further by 40-50% (Scaff Brown, Sept. 81 memo). Although over half of Peru's cultivated hectarage is in the sierra (about 2.3 million has.), this represents only about 7% of the sierra's total area. About half the remaining area (14.3 million has.) is used for grazing or natural pastures on steep slopes at high altitude.

To address the problems summarized above, major efforts must be launched to improve the productive capability of the land resource base (largely through soil conservation, irrigation and introduction of more intensive cropping and livestock systems) and to assure delivery of goods and services required to achieve maximum productivity and incomes from that land resource base in terms both of crops and livestock output.

3. Selva

There is much potential for intensification of arable land in the selva. This area presently is regarded as Peru's frontier for future development. The high jungle, (Ceja de Selva) area represents a potential for an economically feasible frontier for long term progressive development. The large land base - 60% of Peru's total with but 10% of its people, is producing

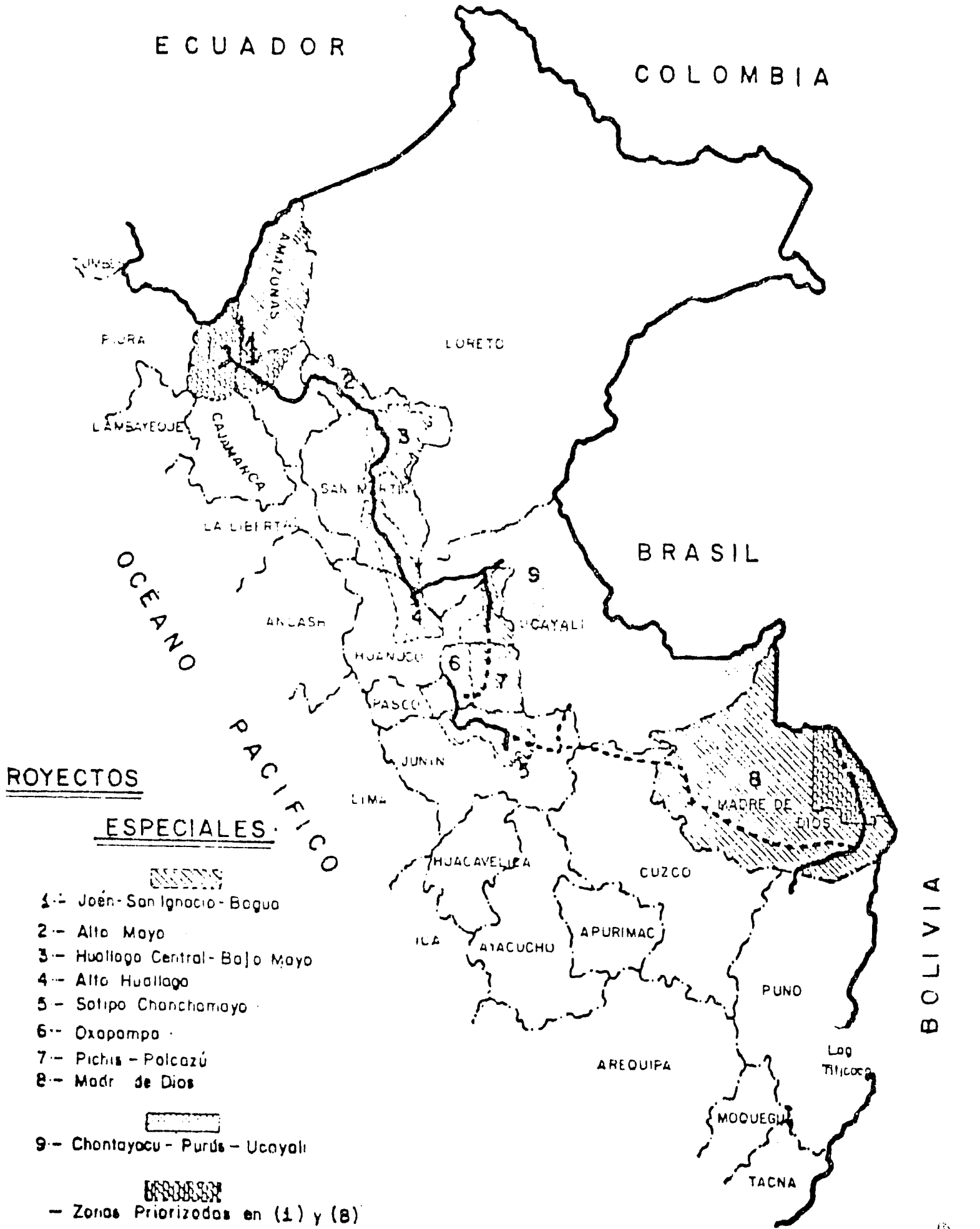
15% of the total agricultural product. Only 10% of the land is in use although this does not imply that the remaining 90% is suitable for agriculture. Over the last five year period it is estimated that _____ people, mostly from the sierra, but also a substantial number of former sierra families who had earlier migrated to the urban centers have gone to the high jungle.

Although the selva is characteristized by lowlands with difficult drainage and tropical forests containing fragile acid soils which show rapid decline in soil fertility when farmed annually, the fertile soils scattered throughout the high jungle offer tremendous opportunity. Most of the 2,000 Km. highway stretching from San Ignacio to some 600 Km. from the Bolivian border has now been completed. This has stimulated spontaneous colonization. In some areas, there are good prospects for attractive returns if appropriate technologies related to land preparation and management are combined with judicious use of productive resources.

Beginning in 1978, when USAID initiated the Huallaga Central Area Development Project, there has been a massive GOP and donor investment of almost $500 million to develop the Ceja de Selva. Around 500,000 has. of

agriculture, livestock and fores land is being incorporated into this development process. Figure 2 outlines the various project sites. Basic project information related to this major investment is provided in Table 10.

Within the high jungle area, considerable national attention is being directed toward San Martin Department. There are about 800,000 has. (about the size of the total land under cultivation on the coast) in this Department with soil fertility ranging from medium to good. Climatic conditions and river distribution patterns are well suited for crop and livestock production. According to a CIAT rice advisor assigned to INIPA, there is an



ROYECTOS

ESPECIALES

1.- Joén - San Ignacio - Bagua
2 - Alto Mayo
3 - Huallaga Central - Bajo Mayo
4 - Alto Huallaga
5 - Satipo Chanchamayo
6 - Oxapampa
7 - Pichis - Palcazú
8 - Madr de Dios

9 - Chontayacu - Purús - Ucayali

- Zonas Priorizodas en (1) y (8)

Table 10 - High Jungle Projects

Project	Initiation	BUDGET GOP $000	BUDGET Donor $000	BUDGET Total $000
Huallaga Central y Bajo Mayo	1978	27,500	19,000 (AID)	46,500
Alto Mayo	1982	28,700	27,500 (IBRD) 19,000 (IAFD)	75,200
Alto Huallaga	1981	8,500	18,000 (AID)	26,500
Palcazu	1982	8,000	22,000 (AID)	30,000
Pichis	1982	40,700	37,400 (IDB)	78,100
Oxapampa	1984		48,000	48,000
Satipo-Chanchamayo	1984	32,000	32,000 (IBRD)	64,000
Jaen-San Ignacio-Bagua	1983	55,000	50,000 (IDB) 15,000 (IFAD)	120,000
		204,000	287,500	487,300

estimated 30-40,000 has. suitable for irrigated rice and at least 50% of this is capable of being cropped twice each year. Present yields range from 5-8 tons per hectare. If but 5 tons could be maintained, and the land area expanded, a potential production of approximately 300,000 tons of rice per year is predicted.

In the Ceja de Selva, particularly the north, rainfall is not dependable at any time during the growing season. For example, in the Bajo Mayo area there is a 20% probability that rainfall will be over 50 mm short of crop requirements except during May and April where it is only 20 mm short. Accordingly, irrigation of any crop will usually assure double average rainfed yields plus assure against unusual droughts. In Bajo Mayo two rice crops per year yielding 6 MT per ha. are typical. Respectable average yields can still be obtained however for such crops as maize, beans, upland rice and sugar cane under rainfed conditions. The potential area for rainfed cropping exceeds 1,500,000 has. in ultisoils with slopes less than 5% and average rainfall of 1.500 mm per year.

It cannot, however, be over emphasized that inappropriate use of soil resources throughout the high selva area will result in the sort of permanent environmental devastation of which there are already too many examples

elsewhere. Appropriate land and natural resource management is the key factor regarding future jungle development.

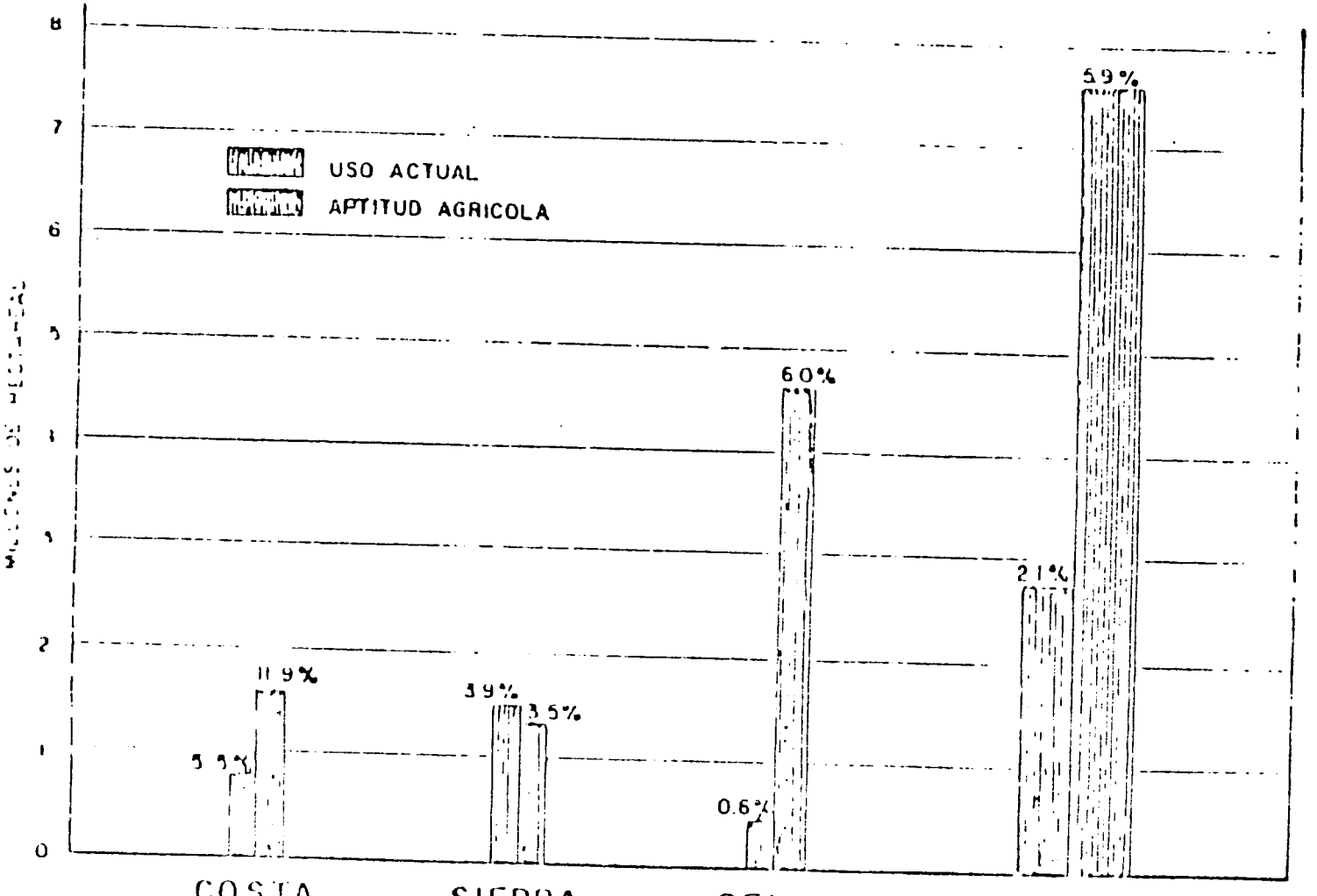
4. Land Use

According to an IBRD June 30 1982 Report, nearly 4.2 million has. (or 3.2%) of the national total is under clean crop tillage, 3.2 million (2.4%) in permanent crops, 18 million has. (14%) in pastures, 43 million (33.5%) in forests and the remainder of nearly 60.2 has (46%) is idle. Employing the ONERN standards, listed in the introductory paragraph, in all categories (except permanent crops) present land use compared with recommended use is not being respected. Sierra land is over-used, the coast is half used and the selva one tenth used (Refer to Figure 3.)

The agrarian reform produced in very short order a tremendous equality in land distribution. The average size of the farms, discounting range lands, is 5.3 has. in the coast, 4.2 has. in the jungle and 2.5 has. in the sierra. Seventy-six percent of the farm land is in units under 5 has. The one million farms in Peru have an average size of 3.4 has.

Figura 3

COMPARACION ENTRE USO ACTUAL DE LAS TIERRAS Y APTITUD AGRICOLA



	COSTA	SIERRA	SELVA	TOTAL NACIONAL
USO ACTUAL	760,000 Ha (1)	1'517,000 Ha (1)	440,000 Ha (1)	2'717,000 Ha. (1)
APTITUD AGRICOLA	1'637,000 Ha (2.1)	1'361,000 Ha (0.9)	4'611,000 Ha (10.5)	7'609,000 Ha. (2.8)

380

Of the major sub-sectors, forestry represents a major unexploited physical resource. An estimated 60 million ha. of tropical and sub-tropical forests of industrial potential exist, almost all in the selva; an additional 10 million ha. of sierra land are appropriate for reforestation. Serious erosion of sierra soil and irregularity of the hydrological regimen in the sierra and costa have been caused by overcutting (without replanting) both for land clearing and to meet basic energy needs. Progressive destruction of forest in the high jungle, resulting from uncontrolled settlement and weak licensing and controls of forestry concessions, threatens permanent destruction of the agricultural potential of the affected areas.

Livestock production is concentrated heavily in the sierra, although there also is limited livestock production on the coast and in the selva. Available data on distribution by farm size indicates that more than 50% of livestock in each category are held on farms of less than 5 has.; operations over 500 has. generally at higher elevations tend toward sheep production, while medium size ranches tend toward cattle and swine. Peru has two million of the worlds' 2,400,000 alpacas. There is potential for expanding livestock capability in Puno, Junin and Ancash, particularly for small ruminants. Major livestock production areas are in the sierra, in the Cajamarca and Lambayeque Valleys in the north, Arequipa, Moquegua, and Tacna Valleys in the south, and,

to a lesser extent, the Mantaro Valley east of Lima. Production levels are well below potential for a variety of policy and site-specific reasons. Sheep production for wool and for mutton is largely in the central and southern sierra, particularly in the Huancayo, Puno and Cusco areas east and southeast of Lima. Intensively managed, commercial poultry production is concentrated in the coast near urban areas.

Expansion of agricultural production can be achieved by 1) improving yields, and 2) increasing the amount of arable land. Historically on a worldwide basis, expanding the land base has been the least expensive way. Peru has also taken this approach. The emphasis has been on highly expensive large-scale coastal-based irrigation projects and area development projects in the high jungle region.

Only 23.5 million has. or 18% of the country's land is in farms. Peru has 3.5 million has. of land suitable for continuous cultivation of which 2.4 million has. is used annually, since 1.1 million hectares are in fallow (mainly in the sierra).

Accordingly, because of its limited arable land, Peru has had to analyze the two options much more carefully than many other countries. Of a listing

of 32 countries prepared by the FAO, Peru had by far the lowest percentage of its total land suitable for continuous cultivation (2.7% compared with the world average of 11.1%). This is a lower percentage than any country in Latin America and the Caribbean. Thus, proper land utilization becomes the critical factor in Peruvian agricultural development.

The problem is exacerbated further by heavy frosts in the sierra, severe erosion emanating from sierra watersheds, deforestation and livestock overgrazing. Water-caused erosion affects at least 30% of Peru's territory, principally in the Sierra. Extremely conservative estimates establish top soil losses caused by this erosion to the equivalent of over 150,000 ha per year 1/. The FAO recommends that the level of erosion flowing through the 53 watersheds to the Pacific Ocean should be reduced by 50 times. 70% of this loss occurs between September and April at the time when the principal clean cropping activities are being done in the sierra.

1/ The USAID Soil Conservation Project measured soil loss under traditional practices in Junin to be an equivalent to 720 MT/hectare.

5. Irrigation

Peru has the highest proportion of its cropped land under irrigation than of any other country in the hemisphere (34% as compared with 11% within region). Peru's heavy dependence on irrigation is illustrated by the 1 million and on occasion 1.25 million has. of land under irrigation. Almost 800,000 of this is located in the coast, More than 250,000 ha. of this area are suffering from varying degrees of excess salinity and water logging. There are 250,000 ha. presently irrigated in the sierra, with an additional 50,000 that could be easily restored to irrigation.

In general, limited attention has been given to rehabilitation, operation and maintenance tasks and adequate water management. Water user fees are not sufficient to cover project administration costs.

A study of the employment generation aspects of irrigation projects done in the sierra and the coast by Dr. Chiriboga (Feb. 1979) provides some interesting observations. "Cost of creating a man/year of employment on these coastal projects ranges from a low of $1,086 for one coastal project to a high of $83,322 per job created, with an average of $13,304. In the sierra projects, per hectare costs range from a low of $55 to a high of $2,116, with

the average cost per hectare being $709. Cost of creating a man/year of employment on the sierra projects varies from the $557 to $5,099 with an average for all sierra projects of $2,292. "Thus, based on this data, for an investment in irrigation on the coast of $13,000, one job is created, whereas, a similar investment in irrigation in the sierra will create more than five jobs."

E. Marketing, agri-business and agro-industry

For most traditional crops, especially from the Sierra, agricultural products continue to move from the producer into the marketing chain as they moved in the pre-reform period: independent truckers collect the product at the farm gate (or nearest roadside) and transport it to major consumption centers or, in some cases, processing plants. Most perishables go to private wholesalers that operate in public wholesale markets. Packing, handling, storage, and grading are quite rudimentary and product losses are quite high. The wholesaling function is to receive the product, hold it for short periods, usually not more than a day or two, and sell in the original container or in partial lots to retailers who come to the wholesaler to buy on a daily basis.

Agricultural marketing in Peru, especially for basic foodstuffs historically has been subject to considerable government intervention. Rice, bread, milk and edible oils prices traditionally have been controlled by the government. Municipalities traditionally exercise varying degrees or monitoring to control "speculation" in public wholesale markets where most wholesale transactions in perishables take place.

During the twelve years of the military rule, government controil of marketing of both agricultural inputs and output became pervasive. Fertilizer marketing was a state monopoly as was export and import of a number of previously freely traded export and import products.

Since 1980 the new government has initiated a process of restructuring and dismantling many of these interventions. Presently, the private sector is permitted to participate directly in agricultural export and import operations (in some cases on a licensing basis). Price controls remain at retail on rice, low cost bread, edible oils, evaporated and recombined milk, eggs and chicken. A common grade of rice continues to be heavily subsidized at the retail level and the state acts as exclusive wholesaler. Farm gate price

regulation/subsidies exist on rice, corn and sugar. In the case of rice and corn, these regulations/subsidies are set to give a price advantqge to production in the ceja de Selva/Selva region.

Considerable progress has been made in exempting agricultural inputs from import duties (agricultural machinery, equipment, tools and vehicles).

Many chronic problems continue in the marketing system, including poor and inadequate storage facilities; inadequate and poorly maintained access and farm to market roads and transport network; high levels of product losses in the marketing chain; limited information about prices, production, supply and demand; few and marginally enforced grades and standards;absence of marketing credit; inadequate wholesale market facilities (complete lack of integrated private wholesaling services); lack of trained manpower qualified to do marketing policy analysis and to manage the various public and private marketing system activities; misdirected anti-hoarding and anti-specualation laws.

Agro-industrial development is a high priority for the government. Legislation provides a number of decentralization oriented incentives (tax, regulatory, credit, etc.) for collection, transporting and primary processing

of agricultural products so long as the facilities are located in the producing areas.

Existing agro-industry is concentrated in wheat and rice milling, sugar processing, mixed feed production, baking, dairy products and elible oils processing. Many are subject to price regulation and quotas (combined private sector/public sector process of regulating price ceilings based on costs of production/processing) throughout the marketing chain.

There is some growth in the processing of "diversified" (specialty crops) such as fruits and vegetables, although this remains a small share of total agro-industry.

Present laws and regulations intervening in agro-industry reflect a mix of the military government's heavy control orientation and the new government's liberalization trend. Problems continue to exist in the areas of price and exchange rate policies, tariffs and licensing regulations, credit, limited qualified manpower resources, in stability of supply of primary products, and general political in stability.

F. International Assistance to Peruvian Agriculture and Rural Development

To assist in the formulation of an appropriate USAID agriculture and rural development strategy, a comprehensive listing of all donor assistance in the sector was prepared by Adolfo Jurado Tovar. The total of this assistance is $312 million.

A brief description of each donor project is provided in Annex A. Descriptions were grouped among topical areas along with a map locating project sites. Brief comments regarding each topical area are provided. below.

Rural Development - Total Donor Assistance $84.9 million

Does not include all activities as noted in Table 10. Project descriptions focus on livestock, forestry, infrastructure, and fishing development. Only project working with a Departmental Corporation (Loreto). Most all projects are focused in the Selva

Water Management - Total Donor Assistance $3.2 millicn

Three donors are working in this sector. Activities are directed to Tinajones, underground water exploitations and small assistance for a national project to assit INAF in the operation, maintenance and management of water user districts.

Reforestation Selva - Total Donor Assistance $9.6 million

A small number of technology development and training activities concentrating in three Sierra departments are listed.

Reforestation Sierra - Total Donor Assistance $1.7 million

A small number of projects directed to wood extraction and demonstration in reforestation.

Reforestation Coast - Total Donor Assistance $2.9 million

Efforts in Lima and Piura directed to test species and control desertification.

Agro-Industry - Total Donor Assistance $11.3 million

Projects are directed to develop sugar, aguaje, tea, oil palm industry in Selva, some production in Sierra and assistance to INDA.

Marketing - Total Donor Assistance $.4 million

Limited activities directed to horticulture, and potato marketing and Lima wholesale market. It should be noted that IBRD and Spani are developing large investment projects in this area.

Crop Research - Total Donor Assistance $8.9 million.

A range of research activities directed at lupines, wheal colza, soft corn, mediterranean fly, and beans all with INIPA are underway.

Forestry - General - Total Donor Assistance $8.3 million

Reforestation technology, wood industry, forestry management and overall

forestry investing assistance.

Livestock Research - Total Donor Assistance $4 million

Attention is focused on small ruminants, cattle and milk

Training and Promotion - Total Donor Assistance $14 million

As broad range of non-formal, audio visual type activities, crop demonstration, empresas campesinas, forestry graduate and extension.

Agricultural Development - Total Donor Assistance 120.1 million

Improved pasture development, multi-crop research, coca substitution in Cusco.

Soils - Total Donor Assistance $1.9 million

Two projects - soil conservation and tropical soils study

Irrigation - Total Donor Assistance $6.6 million

Coastal water-soil-plant relationships and system rehabilitation, small scale irrigation and national hydraulic laboratory.

Also attached, Annex B is a brief statement of the ongoing OARD project activity in the sector.

G. Synthesis of the Evolution of the Peruvian Agricultural Sector Since 1960

The prior discussion presents information demonstrating that Peruvian agriculture stagnated and then regressed during the 1960-1979 period, whether measured by 1) yields, 2) area in production, 3) rate of growth of volume or

value of production, 4) foreign agricultural trade, 5) in relation to population and other indices of need, or 6) in relation to other economic sectors.

Prior to the 1960's, the sector was based on two traditional production subsystems, one characterized by the hacienda structure and the other by small farms, mainly minifundia and subsistence agriculture.

The broad production-marketing system of agriculture was traditionally based, with the small farm sub-sector and the Sierra hacienda sub-sector producing primarily for the domestic market, and the modern coastal hacienda sub-sector (and coffee haciendas in the Ceja de Selva) producing primary products largely for traditional export markets.

The marketing sub-sytem was based on traditional market structures. In the case of the modern, more dynamic coastal hacienda sub-system, hacienda owners were vertically integrated, directly importing their inputs and directly exporting their output.

The traditional hacienda and small farm sub-sectors utilized very few purchased inputs and, with few exceptions, output was marketed through traditional wholesalers in public markets. These systems were inequitable, with most benefits of growth accuring primarily to large landowners and the

urban elite, resulting in highly sewed income distribution and growing political unrest.

Beginning in the early 1960's, this unrest was sufficiently severe that attention turned to basic reforms. Normal political processes were unable to reach agreement on how to carry out these reforms. Only token reforms were achieved until 1968 when the military seized power and carried out a far-reaching land redistribution program.

The political instability up to 1968, and the massive land reform thereafter largely destroyed pre-existing production and marketing sub-systems. New structures were put in place cooperative and associative enterprises for the production sub-system, and state enterprises (often monopolistic) for the factor and product marketing sybsystem. The government attempted to make these new structures viable throughout the 1970's through a myriad actions of direct intervention, subsidies and public policies, but by 1978-79 their failure was obvious.

In 1980, a new democratic government was elected, and efforts have been under way since then to provide policies and supporting services to bring about "reprivatization" and "de-administration" of the agricultural

production-marketing system. Some recovery has taken place, but it has been limited , due to a number of factors.

The root causes of the stagnation/regression of the 1960-1980 period can be classified as: 1) economic, 2) political/economic attitudes, and 3) unfavorable characteristics of the peruvian agro-ecologic environment.

1. Economic Causes

- o Private Sector Disinvestment and Lack of Appropriate New Investment. Private sector disinvestment in anticipation of the reform was thorough, and has never been reversed. Government regulation, pricing policies, trade policies, and the competition and/or monopolies of state enterprises enforced the de-privatization of the agricultural production-marketing system, leaving behind an ineficient, stagnant agriculture which could not generate enough internal resources to maintain itself. What little new investment has taken place has been primarily through the public sector and much of this has been mistargeted and/or mismanaged.

- Mismanagement of the Reform. Beneficiaries of the reform continued the disinvestment for near-term gains. With few exceptions, land reform enterprises lacked managerial capacity and understanding to recapitalize the agricultural base, while state marketing enterprises were unable to generate an adequate cash flow to recapitalize the destroyed agribusiness base.

- Deterioration of on-farm Physical Infrastructure. The lack of investment led to continued deterioration of on-farm infrastructure, while the preference for new works (and unwillingness to levy water charges essential for operation and maintenance) led to deterioration of irrigation systems and the lands which they served.

- Deterioration of Professional and Institutional Resources. Lack of appreciation (antagonism, neglect) for the mangerial and technical products of individuals and institutions led to severe disinvestment and deterioration, as professionals left both public and private agricultual institutions, relocating in other countries or in more favorable pursuits in Peru.

- o Indadequate Revenues and Poor Choices for Public Sector Investments. Weak economic growth and trade deterioration in a weak world economy, compounded by poor investment choices, left he public sector unable to restrain the deteriortion of the agricultural economy. Even with good revenue growth and careful management, the state would never be able to cope with the need for on-farm reinvestment and maintenance and agribusiness investment, while farmers and entrepreneurs lacked the incentives to make such investments, even had they the necessary resources.

2. Political/Economic Attitudes. The fundamental strategy of the current GOP administration is to stimulate private sector investment and productivity through "de-administration" and "re-privatization" by removing policy and regulatory disincentives and providing supporting services. In essence, they wish to make the equity goals of the reform compatible with rapid economic growth. This is a large order. The disastrous policies and investment choices of the military government led to the economic failure of the reform. Nevertheless this process was the direct result of the failure of the classic growth structure of the fifties and sixties to achieve an equitable allocation of the growth which it engendered. Thus current policy

dialogue must deal with delays caused by a set of fears and misconceptions which are embedded in the national political memory and which restrict rapid establishment of a more desirable policy framework.

The principal fears and misconceptions include:

- o Growth Vs Equity. An economic growth strategy is mistrusted because such a strategy failed to distribute widely the benefits of growth prior to the 1968 revolution. A dominant concern for safeguards leads to obstruction of policy reform or the imposition of compromises that effectively neutralize the incentive effects.

- o Foreign Investment is Exploitive. The cost of foreign risk capital is seen to be high relative to the benefits of technology, managerial know-how and markets (or the benefits of these latter are undervalued in popular concept). With some reason, the government finds it difficult to bargain effectively with powerful corporations backed by powerful governments. The political response is to impose restrictions, the effects of which are to redirect foreign investors to more favorable political climates in other countries.

- Private Investment is Exploitive. The mistrust of the profit motive and denial of full costs of business (including pre-investment analysis and political and entrepreneurial risks) leads to comprehensive restrictions on both domestic and foreign investment. The lack of recognition of the value of technical and management services leads to direct attempts to "eliminate the middleman" and "shift ownership to the workers".

- Limited Faith in Technology. The productivity of technology and scientific education is not adequately recognized. The lack of a "naturalized scientific culture" reduces the level and stability of investments in education and research and of the institutions that perform these services.

- Foreign Methods Won't Work. The fact that some attempts to transfer management techniques, technologies, or political approaches have not had uniformly beneficial results has led to the desire for substitution with unique "national" approaches (which may not work either), rather than attempts to isolate and correct deficiencies in the existing system while maintaining its good features.

3. Environmental Diversity and Fragility. Many of the problems of Peruvian agriculture and the ability to resolve them lie in the national ecology. Failure to recognize the importance of these natural phenomena will continue to limit success.

- Physiography. The physical terrain affects communications and transportation costs dramatically and retards intra- and interregional integration.

- Multiplicity of Life Zones. The diversity of ecotypes (some 17 in Peru, vs. 8 in the U.S.) increases the cost of adaptive research and inhibits transferrence of known technology from one area to another by migrating farmers and requires a multiplicity of site-specific adaptive research.

- Scientifically Unknown Life Zones. There is little worldwide scientific experience and even less validated research in the Selva, high Selva and Sierra. Very little known technology is directly transferrable to these ecotypes, and it is only recently that sustained efforts have been made to acquire the necessary scientific

knowledge base.

- o The Unforgiving Frontier. The vast expanse of unused Peruvian territory that might absorb excess population growth by internal migration is not readily exploitable on a sustained use basis, nor has conventional "cut-and-try" farming systems adaptation been successful. The effective utilization of this frontier will continue to depend on research.

- o Environmental Fragility. The steep slopes of the mountains and the acid, infertile soils and weak biosphere of the tropics present major challenges to farmers' ability to sustain the productivity of their land. This problem is exacerbated by the lack of a "naturalized conservation consciousness" to protect and restore these fragile resources.

H. A STRATEGY WATERSHED

Beginning in 1978, AID renewed significant development assitance to Peru after a decade in a holding pattern. Initial assistance avoided working closely with an unreceptive central government, but instead concentrated on improving

the productivity and welfare of small farmers through a decentralized area development approach. The return to democracy and a receptive administration in 1980 has allowed more direct assitance activities.

AID has continued its area development activities, but with a growing participation in support of the basic strategies of the central government. In particular, this has involved expanding support to establish the policy and institutional base for a resurgent, private sector-focused agricultural production-marketing system. Current program emphases include policy reform to remove production and investment disincentives; human and institutional development to expand, adapt, and transmit technology and reestablish professional and managerial manpower; and the management and conservation of natural resources. USAID continues to manage important major area development projects in the Sierra and Selva.

As it contemplates an agricultural development strategy for the remainder of the 1980's, USAID is at a critical transition point or "watershed" which enables it to establish a firm direction for its programs over the next twenty years, assuming a favorable national response. Ability to accept and act on this challenge is a function of both the condition of the agriculturally focussed national development strategy and a realistic appraisal of AID's

comparative advantage.

1. The Agriculturally Focussed National Development Strategy. National development strategy is directed at re-establishing the productive dynamism of the agricultural production-marketing system through "re-privatization", while broadening the equity gains of the reform. To do this, the GOP is removing restrictive regulations and other policy disincentives, establishing investment incentives, restricting state enterprises and encouraging competing private sector investments, while re-establishing the public supporting services and institutions essential to a healthy agricultural sytem. AID's program is and should continue to be supportive of this national GOP strategy which is ideologically and professionally compatible.

A serious problem with respect to implementing this strategy is the limited response which has been generated from the private sector, including the reform sector. The destruction of the former private sector production-marketing system for agriculture, and mismanagement and incapability of public sector replacements, has left the private sector without the dynamism and risk taking attitude to respond quickly. The former private sector actors (who still have resources to invest) have left the agricultural sector and now direct their entreprenurial skills to other

activities, Badly burned by the reform ~~form~~ and subsequent policies, and with their attention directed elsewhere, they do not automatically respond to uncertain opportunity. The reform beneficiaries, now in control of a large share of the land resource, lack the managerial, technological and financial capacity to invest for improvement of the efficiency of the production sub-system and have even less capability to enter the marketing subsystem.

One element key to the kinds of opportunities which can stimulate a rapid private sector response is in the agribusiness marketing component of the Agricultural Production-Marketing system. Product marketing (domestic, export, processing) associated with a dynamic, integrated system must be reestablished and expanded to provide the demand for an increased supply of primary agricultural products. Factor marketing (inputs, technology, credit, land, labor) must be reestablished and expanded to provide the inputs required to meet that demand. 1/

Richard Webb, President of the Central Reserve Bank, describes the application of the agriculturally focussed national development strategy for Peru as follows:

"Agriculture determines directly or indirectly the incomes of 50% of

Peruvian families and almost 100% of that of the poorest stratum. On the luck of this sector depends the level of living and maybe the survival, not only of some two million producers but of hundreds of thousands of persons that live and work in small commercial businesses, services and artisanry in all of the small towns of Peru."

1/ See "US presidential agricultural Mission to Peru" Report, page 27.

"Furthermore, there is no better way to generate employment or to reduce underemployment, than by reactivating the agricultural sector. A growth rate of five percent in this sector generates some 110,000 jobs. The same growth rate in modern industry provides only 10,000 jobs, in construction only 12,000, and in commerce, some 40,000.

"Agricultural development also is the key for achieving another important social objective - decentralization. Because this truth has been forgotten it is the explanation for the failure up to now of decentralization efforts, which have been based principally on grafting of artificial industries, especially by means of industrial ports. Soundly based decentralization comes from below, from the sector that presently sustains the economic life of almost all the provinces except Lima.

"Sound decentralization is the consequence of organic growth, where a vigorous agriculture creates the market for local production/consumption goods and services, as well as for agricultural inputs. It also creates the opportunity for establishing agricultural processing industries and the circle of benefits is complete when the urban population dedicated to these activities increases the local demand for foodstuffs, especially those of high economic value, such as milk products, fruits and vegetables.

"If, 20 years ago, we had begun to give more attention to agriculture, today there would have been more industry. In the economic debate, a false dilemma has been introduced - agriculture or industry. Except during the short period of petroleum production increases for example, rapid industrial growth has gone hand in hand with solid expansion of agriculture.

"The regression of our agriculture has become a brake on industrialization, obligating the sector to depend increasingly on imported inputs: tobacco leaf, beer malt, oils and milk, wood and leather. Thus, when there is a lack of foreign exchange, as in 1976-78, manufacturing growth stagnates. At the same time, the regression of agriculture restricts the market for industrial goods. We need to learn to seed agriculture to harvest

industry.

"The argument of idle capacity that is used to justify industrial priority has equal validity in the country side. Our agriculture has vast resources badly utilized: Land not cultivated, water that is wasted, products that spoil, pastures that produce one-tenth of their potential. It is a utilizable resource with small investments, simple technological changes, and better organization."

Recent IBRD studies of the Peruvian economy endorse heartily this strategy. After inflation, "the stimulation of agriculture is an urgent requirement in Peru for reasons of nutrition, income distribution and balance of payments". Given the present state of the Peruvian economy, key measures over the medium and long-term include the "revival of agricultural development through adequate pricing policy, improved marketing, strengthened support in the form of extension, research and credit and more efficient use of water resources through the rehabilitation of existing irrigation systems". (Both from 1981 IBRD Agriculture Report.)

2. AID's Comparative Advantage. AID's comparative advantage has been strengthened both by clearer policy direction from Washington and

effective participation in the GOP development strategy. Among our resources:

- An Agency agricultural policy which emphasizes policy dialogue, human and institutional development, and a private sector orientation

- Recognition of the value of productive technology and scientific education

- Technical and managerial resources of Title XII universities and a dynamic private agricultural factor and product marketing sector

- PL 480 resources

- A capacity to be more innovative and entreprenurial than the international financial institutions, and with greater financial resources than other bilateral and multinational technical assistance agencies.

- Established and recognized program leadership in Peru in selected

areas, specifically:

+ Research - Education - Extension

+ Agricultural Policy

+ Small Scale Irrigation

+ Natural Resource Conservation and Management

+ Private Sector Promotion

+ Decentralized Planning and Promotion

I. A proposed USAID Strategy Responsive to the Agriculturally Focused National Development Strategy

USAID has a unique opportunity to promote aggressively the development of the agricultual production-marketing system in a manner consistent with agency policy in view of the following factors:

1. Existence of a generally equitable landholding structure.

2. A democratic government attempting to reprivatize the agricultural production-marketing system.

3. The momentum created by the release of the Report of the US Presidential Agricultural Mission to Peru that creates the opportunity to systematically and comprehensively address agricultural development policy issues at the highest levels of Government, and

4. The large amouonts of PL 480 resources and the required quarterly progress reviews that provide a forum to assure that GOP financial support is provided on a timely basis and to discuss key policy issues.

Two basic elements of a forward looking USAID strategy emerge from the previous discussion:

1. Private Sector Investment in the Market Provides the Stimulus. A key new component of the proposed strategy is to stimulate the involvement of the "live forces" of the private sector to provide investment capital, and technological, managerial and entreprenurial skills. The

piecemeal "re-privatization" efforts of the government to date lack a coherent strategic focus, i.e., they provide some basis for renewed private sector activity but not the stimulus needed to energize a group which was turned away from agriculture for two decades. This stimulus must come through the marketing (including processing and agribusiness) component of the Production- Marketing system. It must be largely private, and much of the investment may need to be associated with private foreign enterprises which bring market access, management and technology, as well as capital.

2. Continuation of Selected Current Emphases Assists in Creating the Necessary Conditions. Several current emphases are sound and essesntial to create the conditions required to attract private investment and to provide the support base required to permit the production sub-system to respond to improved markets. These emphases include:

- o Policy and Regulatory Reform
- o Technology Generation and Transmittal
- o Professional Education (with more management emphasis)
- o Natural Resource Conservation and Management

- o Decentralized Planning and Promotion

J. Strategy Statement

1. Sector Goals: These continue to be: (1) to increase the income of rural families, (2) to expand employment opportunities as the most productive and effective means of distributing income, and (3) to increase food production, agricultural exports and import substitutes based on small scale and reformed commercialiy oriented agricultural production.

2. Sector Purpose: Recapitalize (investment, entrepreneurship, management, technology) the agricultural production-marketing system.

Sub-purposes are (a) Create conditions that energize and expand private sector and product market activities, and (b) incorporate into the production sub-system the supporting services, operating environment and management capabilities that permit sustained response to market opportunities, while broadening the equity gains of the recent land reform through employment generation.

K. Constraints to Achieving Strategy Purpose

Although a statement of constraints can be categorized in a number of ways, a categorization consistent with functional groupings of responsible tactical actions can be helpful in relating the two.

The following categorization attempts to permit this common grouping:

1. Limited development of factor and product markets. Agricultural production cannot develop without access to adequate factor and product markets. The decapitalization (in terms of investments, entrepreneurship, management, technology and separation from final markets) of the marketing subsystem (including marketing, storage, processing, transport system, etc.) makes the lack of adequate factor and product markets a key constraint to agricultural development.

   In factor markets, the almost complete elimination of the private sector from participation in agricultural machinery supply, fertilizer distribution and credit delivery has created a tremendous constraint as public institutions established for these purposes have deteriorated and became unable to provide more than token services in

these areas.

The non-existence of a land market, and the lack of water charges related to economic value results in severe distortions in efficient utilization of these basic productive resources.

As discussed earlier, decentralization is best achieved through development of viable regional factor and product marketing activities responsive to the needs of the agricultural production sub-system in the region.

2. Policy and Regulatory Disincentives to Private Sector Investments in Agricultural Production and Marketing Activities. Price policies exchange rate policies, distorted tariffs and licensing requirements, and other regulatory constraints on agricultural factor and product marketing have resulted in highly negative terms of trade for both agricultural products and many modern inputs. This puts the agricultural production-marketing system at a severe disadvantage as compared to other economic sectors in attracting private investment capital and entrepreneurship. It also discourages foreign capital from investing in agro-industry, even for products entering the export

market.

The existence of the public sector in many of these economic activities including their deep involvement in irrigation systems management, maintenance and water allocation, even though they provide inadequate services, discourages private sector entry.

Although the GOP has taken steps to begin to remove these policy, regulatory and public involvement disincentives, much remains to be done for a coherent set of policies to be in operation to improve profitability of investments in agricultural production and marketing enterprises and to provide a climate of assurance to the private sector that it is "safe" to invest when profitable opportunities ariss.

3. Limited Capability in Agricultural Technology Development Adaptation and Transfer. Although considerable GOP, USAID and other donor resouces are being invested in this area, the lack of adequate technology development, adaptation and transfer efforts seriously constrains agricultural production as welkl as marketing present resources are goirg almost exclusively to the public sector. The absorptive capaciti of the public sector (primarily INIPA) is quite

limited. Its potential to adequately deal with basic commodities is limited and is potential to deal with non-basic diversified crops if non-existent.

There are private sector organization that can play an important role in technology development and transfer in many diversified crops. The potential for agri-business and agro-industry to assume technology adaptation and transfer is enormous through vertical integration, contract research, etc. By being allowed to obtain economic benefits from production and sale of seed, plants, foundation livestock, etc., the private sector could develop considerable capacity and have the incentives to play a greater sale in technology adaptation and transfer.

4. Shortage of qualified manpower (especially managerial) to efficiently manage both public and private sector activities. Although most public and private agricultural activities are constrained by this limitation, not much is known about the overall magnitudes or characteristics of this limitation. Generally trained technical manpower exists at a higher proportional level than in many more developed countries. Capacity to manage research, production,

agri-business, agro-industry, production and other agricultural services such as irrigation systems management and other resource management is lacking at all levels.

Public and private educational institutions have considerable potential to respond in alleviating these limitations if provide appropriate suppport. Inclusion of management training in degree curricula is needed practical non-academic training can also contribute enormously if appropriately targeted both in terms of content and clientele.

5. Lack of Attention to Natural Resource Conservation and Utilization.

There appears to be an almost total lack of a natural resource conservation consciousness in peruvian agriculture, with regard to the two most scarce factors of production: land and water/

The conservation policy framework is inadequate, and formal and informal educational efforts in conservation needs and solutions ijs unfocussed and limited. Systems for mobilizing self-help in conservation by farmers ndo not exist. Public sector supporting services institutions do not utilize opportunities to incorporate

conservation initiatives into their activities.

L. Programming Tactical Actions Responsive to the Constraints Being Addressed by the Strategy.

In programming responsive tactical actions, three criteria are applied: 1) must respond directly to one or more of the identified constraint categories, 2) must maximize complementarity with GOP initiatives, as well as actual and potential support by other donores (this includes the provision of a critical input to assure success of activities receiving substantial support from other sources, as well as addressing areas not otherwise being addressed but which are considered to be critical to balanced development of the sector), and 3) must be within the framework of comparative advantage for AID efforts in terms of those advantages described earlier.

Proposed interventions are as follows:

1. Stimulate private sector and product market development

   a. Factor market developments in fertilizer, farm machinery, seed plants, and breeding livestock, integrated with other services

such as credit and technology transfer.

b. Product market development in food processing and other agro-industry, especially as related to diversified export opportunities.

c. Investment opportunities information and promotion, market information, export trade promotion, Peru/foreign linkages development for joint ventures, markets, management and technology, grades and standards, packaging, vertical integration.

2. Improved policy and regulatory climate to stimulate expanded private sector participation in agricultural production and marketing.

a. Interest rate policies to stimulate private sector credit to agricultural production and marketing enterprises.

b. Policies related to structure and management of production and service cooperatives.

c. Analyze and reform regulations related to establishing and doing

business in Peru.

d. Policies related to water management systems and a land market to permit encourage private sector development in these areas.

3. Improve agricultural technology development, adaptation and transfer.

a. Stimulate private sector involvement, especially in diversified crops (producer associations, private firms, agri-business).

b. Expand Sierra livestock development efforts, weed pasture and range management focus.

c. Expand farm production and financial management capabilities.

4. Expand professional manpower development efforts, both in terms of quality and quantity

a. Emphasis on managerial training in research and business management, not only as specialization but as a curricula-item for professional specialists as well (UNA, ESAN, El Pacífico, selected

regional universities).

b. Develop private technology transfer and management services for production and service cooperatives and medium sized farms.

c. Initiate a competitive agricultural production or marketing research grants program with selected universities - develop an active civic participation consciousness in same.

d. M.S. and Ph.D. training program in U.S. for up-grading research management, teaching and research capabilities for selected high priority areas.

5. Expand Activities in Land and Water Conservation

a. Support development of curricula in land and water conservation for subject matter degree programs in UNA and selected regional universities.

b. Provide resources to ONERN for appropriate resource studies.

c. Seek opportunities to complement World Bank, IDB and other donors to provide unique inputs, such as experience gained from pilot soil conservation program.

M. Projectizing the Program

Proposed project areas by constraint/program categories are indicated below in terms of types of activities, estimated funfing levels and year of project development activities.

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
A. Improved private sector participation in factor and product marketing		65	
1. Market development and promotion	Market information system, investment potentials, investment promotion, joint venture linkages.	(5)	FY 85
2. Factor market development	Technical assistance linkages and public sector promotion of privatization of seed industry,	(30)	$ 10.0 in FY 84 (expand by $20.0 FY 87)
3. Diversified export promotion	Technical assistance to organize private and public sectors to private to identify specialized product markets, develop foreign, domestic, investor and producer linkages, develop vertical integration provide credit.	(30)	$ 15.0 in FY 86; expand $20.0 in FY 88.

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
B. Improved policy and regulatory climate for private sector in agricultural production-marketing system.		17.0	
1. Agricultural credit system	Interest rate and other credit policies role of Banco Agrario; facilitate credit acvities of other donors; private sector role and incentives; local banking institutions; privatization and decentralization of Banco Agrario activities; initiate pilot programs.	(3)	FY 85
2. Improvement of production and service cooperatives	Develop policy framework for improved structure, organization and operating systems and apply on pilot basis.	(5)	FY 86
3. Decentralization and Regional Development	Improve rural urban development linkages to maximize development	(15)	FY 87
		23	

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
3. Privatization policies for support services	Analysis related to grades and standards, private sector participation in research, technology transfer, irrigation systems and conservation systems management; develop authorizing legislation and operating systems; carry out pilot program appropriate	(3)	FY 84
4. Land market Promotion	Carry out appropriate analysis, develop authorizing legislation and carry out a pilot program	(6)	FY 85
C. Improve agric. technology, development and application		12.0	
1. Pasture and range management and Sierra livestock development.	Jointly with BID, World Bank and private sector, expand improved livestock production through improved pasture and range management.	(10)	FY 85

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
2. Strengthen private producer associations	Assist in organization; public/private sector linkages; implementation of activities, especially oriented to diversified/ specialty crops.	(2)	FY 84

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
D. Professional Manpower Development		35.0	
1. Core support for professional agricultural human resource development.	Systems approach to agricultural higher education with focus on overseas advanced degree; and 3-5 regional universities; technology training emphasizing location specific options, strenghtening marketing, management (economic, administration, finance, accounting, legal) and conservation training through curriculum development, staff development, equipment, operating resources.	(25)	$ 10.0 in FY 85 expand $ 10.0 in FY 87

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
2. Production-marketing management training	Non-academic program of short-courses, workshops, seminars, on-the-job training through UNA, ESAN, El Pacifico, consulting firms, linking with cooperatives, agri-business, agro-industry, medium sized farmers, producer associations, etc.	(10)	FY 85
E. Conservation and Natural Resources		(24.0)	
1. ONERN Support	Resource studies related to water and soil conservation	(2)	FY 86

Project Title by Program Category	Illustrative Types of Activities	Estimated funding levels ($ million)	FY of Project Development
2. Irrigation water management and Soil Conservation	Small scale irrigation management and maintenance on pilot basis; privatization and salinity control, management, allocation and maintenance on pilot basis in selected coastal irrigation system, soil conservation, and improve technologies in sierra and coastal irrigation.	(20)	FY 85
3. Conservation in the Selva.	Develop pilot program of landowner managed integrated watershed management and soil conservation system in Central Huallaga.	(2)	FY 86
Grand total		(200.0)	

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DONOR REPORT

CODE

IRRIGATION = IRR

IRR.1 = Factors that influence the production of pasture and food crops in the irrigated desert soils in the South (FAPROCAF)

Arequipa

IRR.2 = Improvement of irrigation in the Sierra. MERIS Project - II Phase

Cusco, Ayacucho

IRR.3 = Improvement of minor irrigation infrastructure works in depressed areas

National level

IRR.4 = National Program of Rehabilitation of Coastal Lands (REHATIC PROJECT)

Lima, Ica, Arequipa

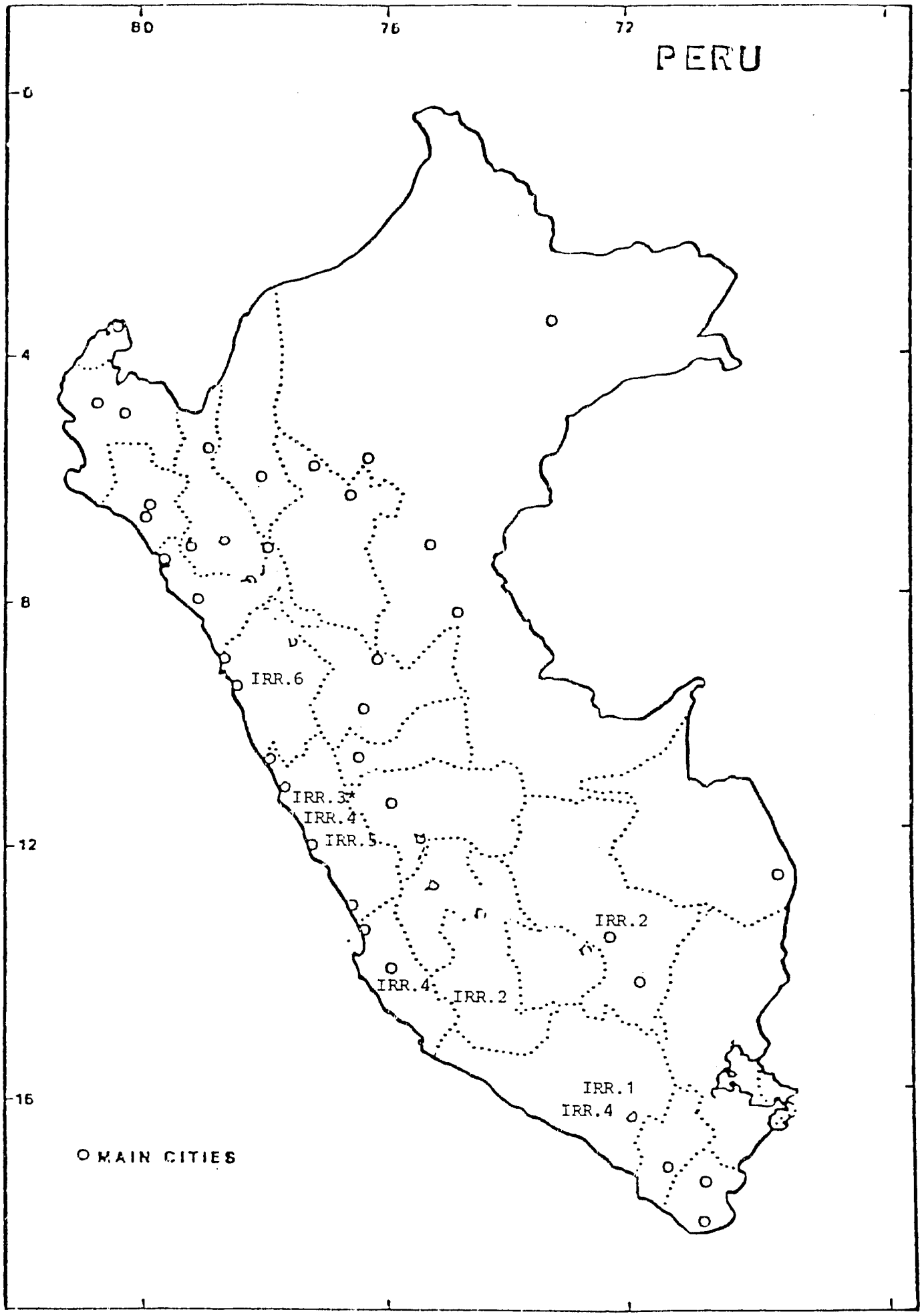
IRR.5 = National Laboratory of Hydraulics

Lima

IRR.6 = Project of Small Dams for the rehabilitation of drought affected areas

Ancash

DONOR REPORT
IRRIGATION = IRR (See Code)



IRR.1

PROJECT NAME: Factors that influence the production of pasture and food crops in the irrigated desert soils in the South of Peru (FAPROCAF)

DONOR AGENCY: Government of Holland and Israel.

GOP AGENCY: INIPA

DESCRIPTION:

The project involves two stages, and the agricultural research program will tend to maximize the water-soil-plant relationships.

OBJECTIVES:

To get in the shortest time the limiting factors of forage and food crops, correlating soil, water and nutrient aspects with the growth of the crops.

To develop a research project using data obtained in the area for future use in other areas through simulation programs.

DURATION: 1980 - 1983

PROJECT COSTS: EXTERNAL: FL.Hl. 2,464,000
GOP: Soles 2,300,000

PROJECT LOCATION: Arequipa (La Joya Irrigation)

IRR.2

PROJECT NAME: Improvement of Irrigation in the Sierra. MERIS Project II Phase

DONOR AGENCY: F.R. Germany

GOP AGENCY: Instituto Nacional de Ampliacion de la Frontera Agricola (INAF)

DESCRIPTION:

F.R. Germany is supporting MERIS Project I Phase. GOP requested technical assistance for the II phase of the MERIS Project to F.R. Germany, establishing activities in Cusco and Ayacucho.

OBJECTIVES:

Identification and priority of new irrigation projects in the South of Peru.

Revision of up-to-date studies in water and soil resource utilization.

DURATION: 1980 to 1984

PROJECT COSTS: EXTERNAL: DM 2,325,000
GOP: DM 5,790,000

LOCATION: Cusco and Ayacucho

IRR.3

PROJECT NAME: Improvement of Minor Irrigation Infrastructure Works in Depressed Areas

DONOR AGENCY: USA - CARE

GOP AGENCY: Direccion General de Aguas y Suelos

DESCRIPTION:

GOP has priority in establishing minor irrigation infrastructure workds to increase food production. CARE has experience cooperating with governments in planning, implementing, supervising and evaluating programs of development and agricultural production. Then it was decided to sign an agreement in 1978 between both parties.

OBJECTIVES:

To increase food production, through community participation and promoting local initiatives.

Support GOP (Ministerio de Agricultura) activities in the associative enterprises, also in small land owners through "Comision de Regantes".

DURATION: From 1970 to - not determined

PROJECT COSTS: EXTERNAL: Soles 71,900,000
GOP: Soles 132,131,000

LOCATION: National level

IRR.4

PROJECT NAME: National Program of Rehabilitation of Coastal Lands (REHATIC Project)

DONOR AGENCY: Government of Holland

GOP AGENCY: INAF

DESCRIPTION:

The GOP entity in charge of the project was established in 1977 and is under INAF authority: "Direccion Ejecutiva del Proyecto Especial de Rehabilitacion de Tierras Costeras"

OBJECTIVES:

Rehabilitation of the coastal valleys (with problems of salinity and drainage) for an appropriate agricultural utilization.

DURATION: 1981 to 1983

PROJECT COSTS: EXTERNAL: US$1,389,577
GOP: US$ 78,176

LOCATION: Lima (Mala-Cañete)
Ica (Pisco)
Arequipa (Camana, Majes, Tambo)

IRR.5

PROJECT NAME: National Laboratory of Hydraulics

DONOR AGENCY: Government of Holland

GOP AGENCY: INAF

DESCRIPTION:

The project started in 1975. The technical assistance is provided through Hydraulic Laboratory of Delfe by means of scholarships, seminars and supply of equipment and literature.

OBJECTIVES:

To provide advisory service for field design and hydraulic model construction.

Training and development of research for the problems that affect port installation.

DURATION: 1975 to 1982

PROJECT COSTS: EXTERNAL: Fl.Hl. 2,820,000
GOP: Soles: 56,500,000

LOCATION: Lima

IFR.6

PROJECT NAME: Project of Small Dams for the Rehabilitation of Drought Affected Areas

DONOR AGENCY: European Economic Community (CEE)

GOP AGENCY: INAF

DESCRIPTION:

The project consists in building 106 small dams and improvement of major irrigation infrastructure works in "Cordillera Negra"

OBJECTIVES:

Increase food production, establish families in the area, decreasing the reate of migration to the populated areas, raise the income and generate new employment opportunities.

DURATION: 1982 to 1985

PROJECT COSTS: EXTERNAL: US$1,530,000
GOP: US$1,550,000

LOCATION: Ancash (Huaraz, Casma, Yungay, Santa)

DONOR REPORT

CODE

SOILS = S

S1 = Research in Tropical Soils in Yurimaguas

Loreto

S2* = Soil Conservation

National level (Pilot Area = Cajamarca)

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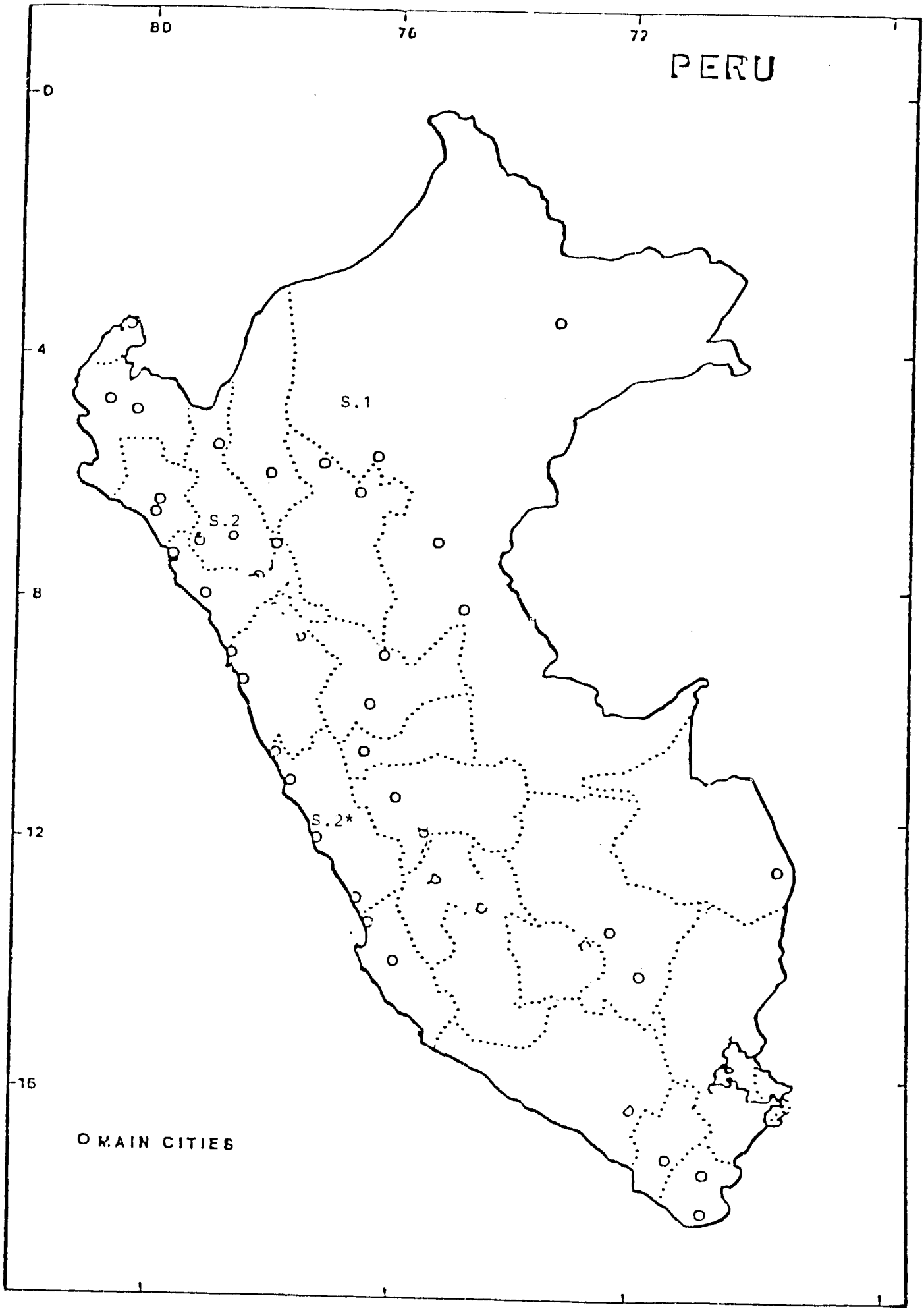
* Means national level in the map.

DONOR REPORT
SOILS = S (See Code)



S.1

PROJECT NAME: Research in Tropical Soils in Yurimaguas

DONOR AGENCY: USAID

GOP AGENCY: INIPA

DESCRIPTION:

In 1972 an agreement was signed between GOP (INIPA) and the University of North Carolina (Soils Department) to do research in soils in the jungle.

In 1980, a Memorandum of Understanding was signed between INIPA and NCSU to include a Cooperative Program on management of tropical soils in the humid tropics.

OBJECTIVES:

Technical development of soil management to change shifting agriculture to a continuous agriculture production system.

DURATION: Indefinite

PROJECT COSTS: EXTERNAL: US$900,000 (1982)
GOP: US$340,000 (1982)

LOCATION: Loreto

S.2

PROJECT NAME: Soil Conservation

DONOR AGENCY: USAID

GOP AGENCY: General Directorate of Water, Soil and Irrigation (DGASI)

DESCRIPTION:

Project involves building up a national system of soil conservation, fostering in Peru the appropriate management of soil and water conservation, including demonstation sites in Cajamarca.

OBJECTIVES:

To propose the establishment of the National System of Soil Conservation.

To establish and evaluate the results of field trials and prepare technical bulletins.

DURATION: 1980 to 1984

PROJECT COSTS: EXTERNAL: US$1,000,000
GOP: US$ 340,000

LOCATION: National level, Cajamarca (pilot area)

DONOR REPORT

CODE

AGRICULTURAL DEVELOPMENT = AGRI.D

AGRI.D.1 = Promotion of pastures in the Central Sierra

Junin, Pasco, Huanuco, Huancavelica

AGRI.D.2 = Research, extension and education project

Lima, Ica, San Martin, Junin, Iquitos, Madre de Dios, Ucayali

AGRI.D.3 = Agricultural development of Cajamarca (PRODAC)

Cajamarca

AGRI.D.4 = Coca erradication program in Quillabamba

Cusco

AGRI.D.5* = Support to agricultural research and extension

National level

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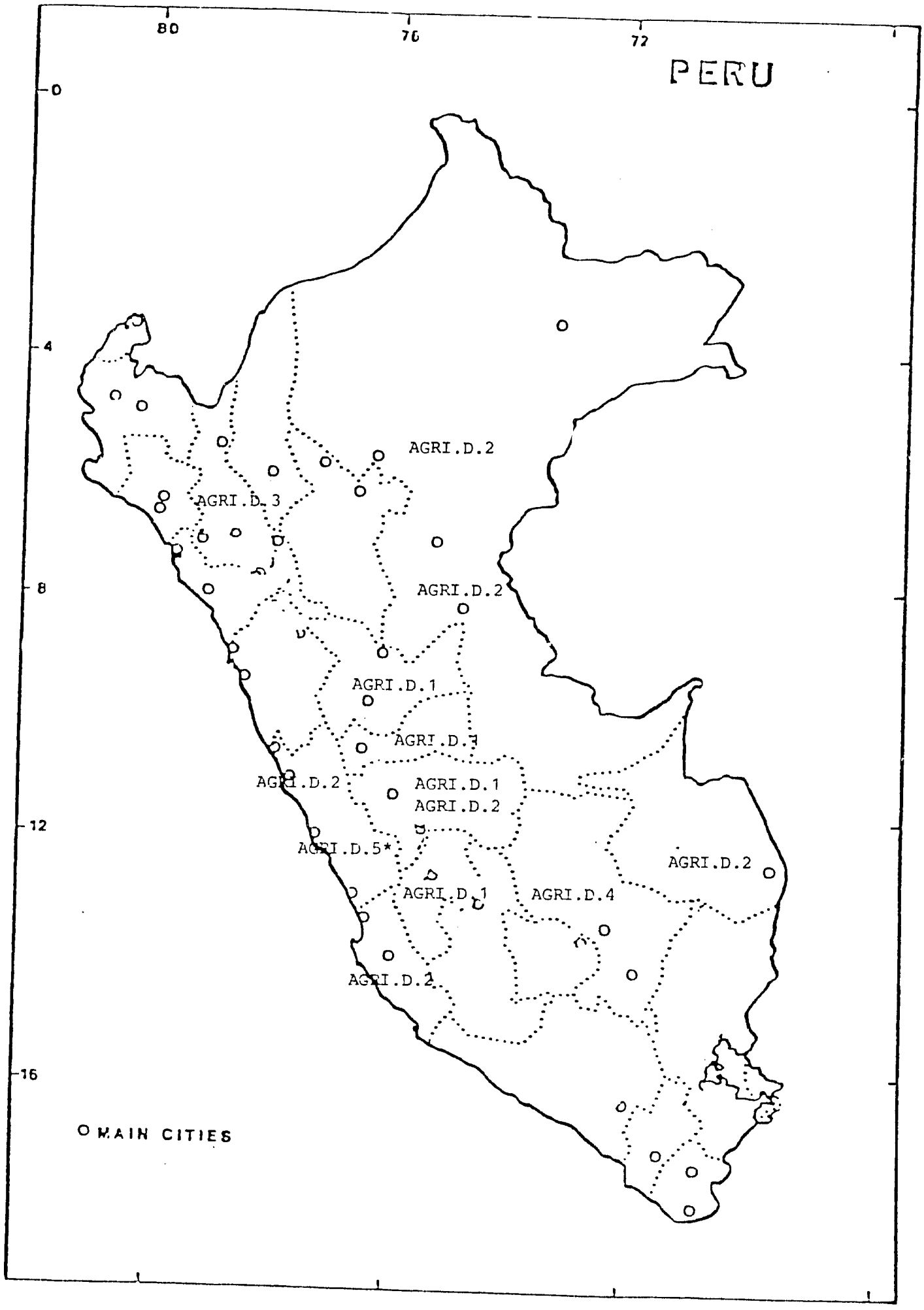
* Means national level in the map.

DONOR REPORT
AGRICULTURAL DEVELOPMENT = AGRI.D. (See Code)



AGRI.D.1

PROJECT NAME: Promotion of Pastures in the Central Sierra

DONOR AGENCY: F.R. Germany

GOP AGENCY: Central de Empresas Campesinas
Revolucion 3 de Octubre /CEC-RETO

DESCRIPTION:

Since 1974 up to 1977 the F.R. of Germany (COTEPLAN) has been involved in a program of pasture improvement in SAIS Tupac Amaru and Uribamba Community. The results are satisfactory. Then CEC-RETO has decided to extend its action.

OBJECTIVES:

Improvement of the native rangeland.

Introduction and massive production of pastures under irrigation.

Intensive management of cattle, and sheep to improve the milk, meat and wool production.

DURATION: 1979 to 1983

PROJECT COSTS: EXTERNAL: US$1,862,800
GOP: US$1,856,850

PROJECT LOCATION: Junin, Pasco, Huanuco, Huancavelica

AGRI.D.2

PROJECT NAME: Research, Extension and Education Project (REE)

DONOR AGENCY: USAID

GOP AGENCY: INIPA

DESCRIPTION:

The starting point for the REE project was the baseline study on the research, extension and education system of Peru. Through an agreement between GOP and AID with NCSU support.

For the first time we have 5 national production programs (rice, corn, small grains, potatoes and beans) that give participation to institutions involved in research, extension and education. IDB and World Bank are now participating in the REE Project.

OBJECTIVES:

To create and reinforce the capacity of the institutions involved in agricultural research, extension and education for the development and increase of the production and productivity of the Agrarian Sector.

DURATION: 1981 to 1986

PROJECT COSTS: EXTERNAL: US$11,000,000 ($2,000,0000 grant)
GOP: US$4,000,000

LOCATION: Lima, Ica, San Martin, Junin, Iquitos, Madre de Dios, Ucayali.

AGRI.D.3

PROJECT NAME: Agricultural Development of Cajamarca

DONOR AGENCY: Government of England

GOP AGENCY: INIPA

DESCRIPTION:

The project was started in 1973 and according to the Agreement ended in 1978. An extension until 1982 has been approved.

OBJECTIVES:

To raise the milk production through the improvement of the health conditions, pasture and cattle.

DURATION: 1973-1982

PROJECT COSTS: EXTERNAL: Soles 68,659,000
GOP: Soles 27,643,000

PROJECT LOCATION: Cajamarca

AGRI.D.4

PROJECT NAME: Coca erradication program in Quillabamba

DONOR AGENCY: Government of Italy

GOP AGENCY: Empresa Nacional de la Coca S.A.

DESCRIPTION:

GOP is looking for alternatives of substitution of coca. Keeping in mind that any alternative involves profound changes in the price system and in the technology.

OBJECTIVES:

To establish an agri-industry to replace coca activity but with an equal or greater economic income.

DURATION: 1982 to 1983

PROJECT COSTS: EXTERNAL: US$250,000
GOP: US$250,000

LOCATION:

AGRI.D.5

PROJECT NAME: Support to Agricultural Research and Extension

DONOR AGENCY: UNDP and FAO

GOP AGENCY: INIPA

DESCRIPTION:

In 1980 Minister of Agriculture requested cooperation from FAO to identify and formulate a Technical Cooperation Program. A group of experts from FAO and GOP identified 11 projects of Technical Cooperation, including "Support to Agricultural Research and Extension".

OBJECTIVES:

Support and advise INIPA in strengthening the Office of Agro-Economy.

Support INIPA in marketing and farm mechanization.

To collaborate in the training program of INIPA and the Agrarian Sector.

DURATION: 1982-1986

PROJECT COSTS: EXTERNAL: US$1,352,000
GOP: Not available

PROJECT LOCATION: National level.

DONOR REPORT

CODE

LIVESTOCK RESEARCH = L.R.

L.R.1 = Collaborative Research Support Program in Small Ruminants

Piura, Lambayeque, Junin and Puno

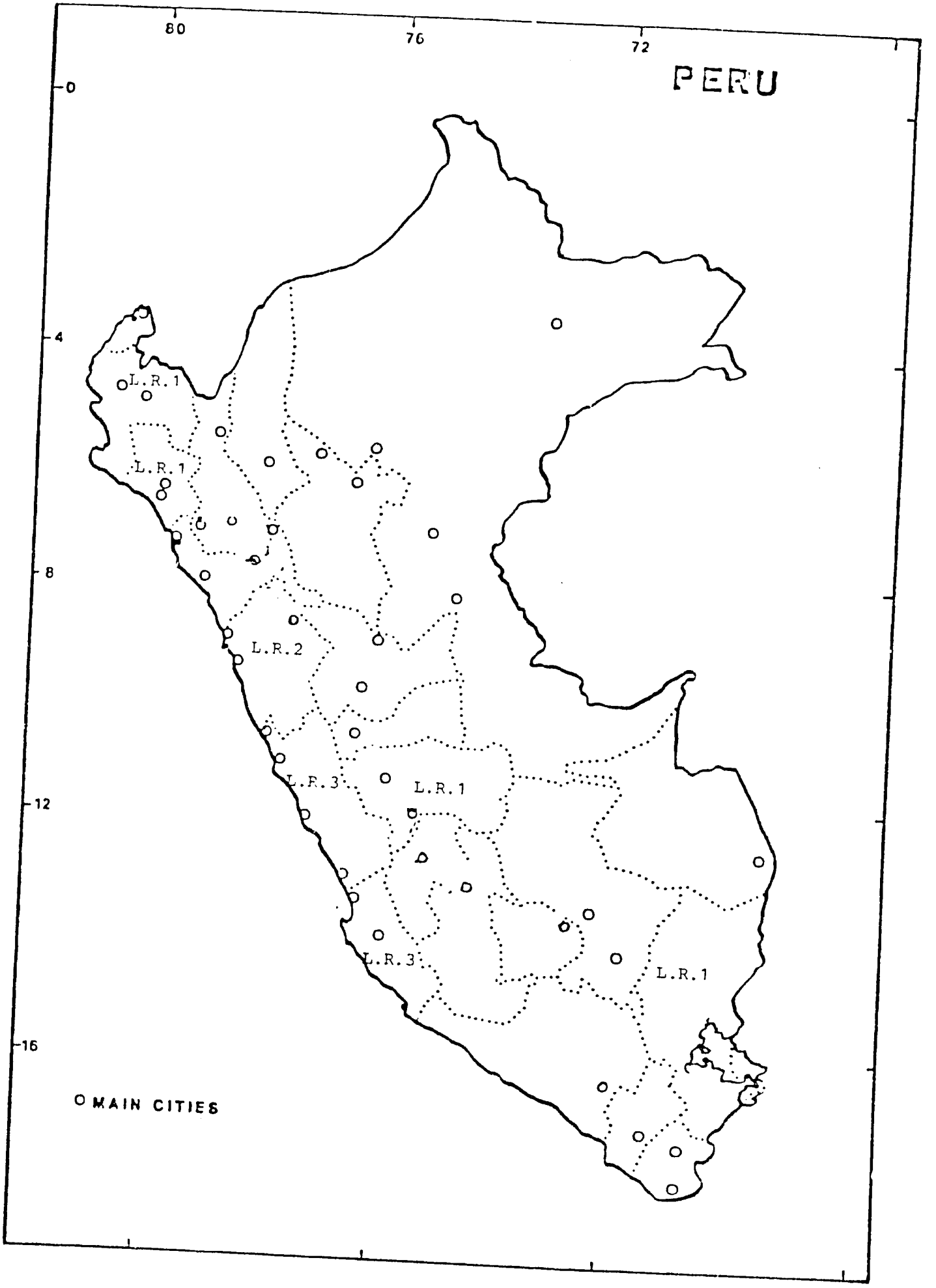
L.R.2 = Livestock Support in Callejon de Huaylas

Ancash

L.R.3 = Support program for the dairy men

Lima, Ica

DONOR REPORT
LIVESTOCK RESEARCH = L.R. (See Code)



L.R.1

PROJECT NAME: Collaborative Research Support Program in Small Ruminants

DONOR AGENCY: AID - University of California-Davis (USA)

GOP AGENCY: INIPA - National Agrarian University-La Molina, Piura, Chiclayo, Puno and IVITA.

DESCRIPTION:

It is a collaborative research program with the University of California-Davis as coordinating entity within the Title XII Program with the purpose of giving training and develop research in support of procedures of small ruminants with scarce limited resources.

OBJECTIVES:

- Development of a technology adapted to the social and economic conditions of the producers of small ruminants to increase production and productivity.

- To strengthen the national system of agricultural research in the area of small ruminants in Peru.

DURATION: From 1980 to 1085

PROJECT COSTS: EXTERNAL: US$3.835,910
GOP: US$ 328,000

PROJECT LOCATION: Piura, Lambayeque, Junin and Puno.

COMMENTS:

L.R.2

PROJECT NAME: Livestock Support in Callejon de Huaylas

DONOR AGENCY: CARITAS - Switzerland

GOP AGENCY: INIPA

OBJECTIVES:

To promote the development of cattle in Callejon de Huaylas through the installation of livestock modules.

Relocation of "Granja Tingua".

Improvement of the system of production and training and extension.

DURATION: From 1981 to 1982

PROJECT COSTS: EXTERNAL: Soles 38,050,000
GOP: Soles 46,210,000

PROJECT LOCATION: Ancash

L.R.3

PROJECT NAME: Support Program for the Dairymen

DONOR AGENCY: Switzerland Government (COTESU)

GOP AGENCY: INIPA

OBJECTIVES:

To improve the supply of milk to the markets of Lima and Callao through technical assistance provided to the associative enterprises involved in the project.

DURATION: From 1976 to 1981

PROJECT COSTS: EXTERNAL: Swiss francs: 25,560,000
GOP: Soles 1,060,000

PROJECT LOCATION: Lima and Ica

DONOR REPORT

CODE

TRAINING AND PROMOTION = T.P.

T.P.1 = Program of Rural Training by means of audiovisual pedagogy for the development of Piura and Tumbes

Piura and Tumbes

T.P.2 = Technical support for the promotion of the peasantry of Puno

Puno

T.P.3 = Technology transfer of agricultural production and improved seed

National level

T.P.4 = Training program for management development

Piura, Lambayeque, La Libertad, Lima, Ica, Ayacucho, Huanuco, Huancayo

T.P.5 = Specialized and basic training for farmers

Lambayeque, Lima, Junin and Ayacucho

T.P.6 = Implementation of a post-graduate program of studies in Forestry

Lima, Huancayo, Loreto

T.P.7 = Training and forestry extension. Education program in the foresty area in Pucallpa

Ucayali

T.P.8* = Strengthening of the Service Center of Audiovisual pedagogy for training (CESPAC)

National level

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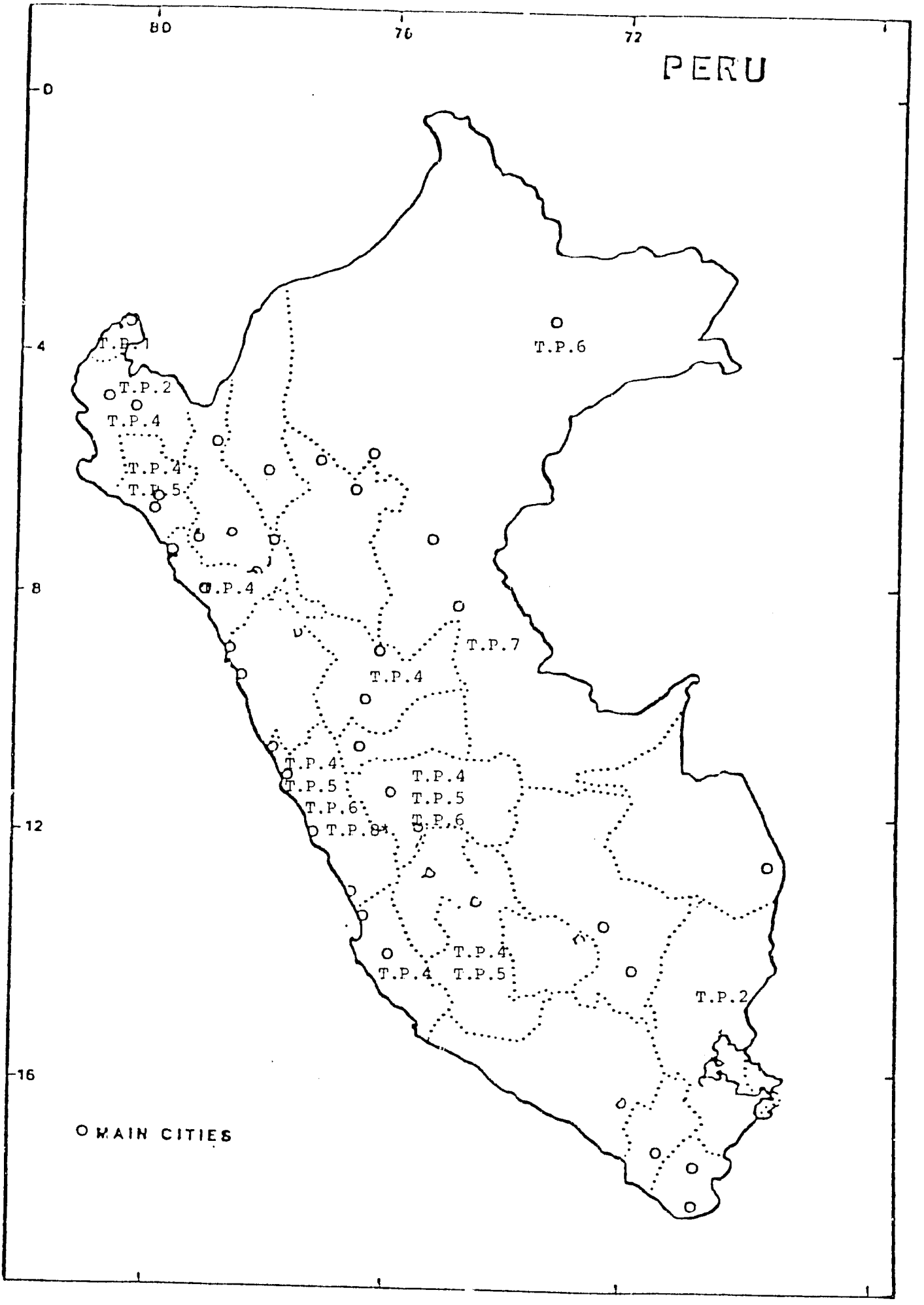
* Means national level in the map.

DONOR REPORT

TRAINING AND PROMOTION = T.P. (See Code)



T.P.1

PROJECT NAME: Program of rural training by means of audiovisual pedagogy for the development of Piura and Tumbes

DONOR AGENCY: F.R. Germany (Friedrich Ebert Foundation)

GOP AGENCY: CESPAC

DESCRIPTION:

Before 1981, CENCIRA was in charge of this project. Starting June 1981 CESPAC was considered as GOP counterpart of the project.

OBJECTIVES:

To increase the level of production and productivity in the rural environment, improving the management within the project.

To promote a major participation of the members of the units of production in the socio-economic development of that area.

DURATION: From 1978 to 1984

PROJECT COSTS: EXTERNAL: Soles 82,445,822
GOP: Soles 54,271,000

PROJECT LOCATION: Piura and Tumbes

T.P.2

PROJECT NAME: Technical support for the promotion of the peasantry of Puno

DONOR AGENCY: F.R. Germany

GOP AGENCY: Centro de Información, Estudios y Documentación (CIED)

DESCRIPTION:

CIED has been working since 1980 within the project area and has found that 64% of the PEA are working in Agrarian activities, problems in accounting are producing decreases in production and migration to other areas of the country.

OBJECTIVES:

To accelerate the development of communities, raising the level of technical knowledge.

To develop investigations about the regional and local reality that will orientate the training and alternatives for the appropriate development.

DURATION: From 1982 to 1983

PROJECT COSTS: EXTERNAL: US$30,000
GOP: Soles 18,000,000

PROJECT LOCATION: Puno (distritos of Pateria y Coata)

T.P.3

PROJECT NAME: Technology Transfer of Agricultural Production and Improved Seed.

DONOR AGENCY: IDB

GOP AGENCY: INIPA

DESCRIPTION:

The project will work mainly with soft corn, potatoes, rice and sorghum and also with dairy and double purpose cattle and sheep.

OBJECTIVES:

To raise the production and productivity of crops and cattle that contribute in very significant way to the food supply.

To develop appropriate methods to establish systems of increase, distribution and maintenance of improved seeds.

DURATION: From 1979 to 1983

PROJECT COSTS: EXTERNAL: US$8,600,000
GOP: US$3,500,000

PROJECT LOCATION: National level

T.P.4

PROJECT NAME: Training Program for Management Development

DONOR AGENCY: IDB

GOP AGENCY: INIPA

OBJECTIVES:

To offer advanced courses in management programs of 1 and 3 months duration for the technical personnel of the "Empresas Campesinas".

To develop a program of technical assistance in support of the "Empresas Campesinas" beneficiaries of the credits granted by BID.

DURATION: From 1979 to 1982

PROJECT COSTS: EXTERNAL: US$650,000
GOP: US$1,000,000

PROJECT LOCATION: Piura, Lambayeque, La Libertad, Lima, Ica, Ayacucho, Huanuco and Huancayo.

T.P.5

PROJECT NAME: Specialized and basic training for farmers.

DONOR AGENCY: Technical Cooperation of the Switzerland Government (COTESU)

GOP AGENCY: INIPA

DESCRIPTION:

In March 1979, the Switzerland Government approved the request of technical Cooperation and in April 1979 the operative plan was elaborated.

OBJECTIVES:

To make a contribution to the consolidation of the associative enterprises of the campesinos through the specialized and basic training according with the directives of the Ag Sector.

To foster the campesino participation in the management of the investment programs.

DURATION: 1979 (April) - 1982 (March)

PROJECT COSTS: EXTERNAL: Fr. S. 960,000
GOP: Soles 44,140,000

PROJECT LOCATION: Lambayeque, Lima, Junin, Ayacucho

COMMENTS:

COTESU has the desire to transfer the project to GOP, because the goals have been obtained, so in the extension of the agreement, the transference would be made progressively.

T.P.6

PROJECT NAME: Implementation of a Post-Graduate Program of Studies in Forestry

DONOR AGENCY: Government of Canada (ACDI)

GOP AGENCY: Direccion General Forestal y de Fauna
National Agrarian University-La Molina

DESCRIPTION:

The evaluation of the Technical Cooperation Program (1980/1981) emphasized the importance of Forestry in GOP and within this area, the implementation of a post-graduate program of studies leading to the M.S. in Forestry in the Agrarian University.

OBJECTIVES:

Define and establish a curriculum for the M.S. program in Forestry.

To train the staff for the program at National Agrarian University and also Universidad Nacional del Centro and Amazonia Peruana.

DURATION: 1982 to 1986

PROJECT COSTS: EXTERNAL: Can. $3,500,000
GOP: Can. $2,000,000

LOCATION: Lima, Huancayo, Loreto

T.P.7

PROJECT NAME: Training and Forest Extension Education Program in the Forest Area in Pucallpa

DONOR AGENCY: Government of Switzerland (COTESU)

GOP AGENCY: INFOR

DESCRIPTION:

In 1976 "Direccion General Forestal y de Fauna" requested technical assistance from the Government of Switzerland for training and formation of technicians in Forestry, within CICAFOR of Pucallpa.

OBJECTIVES:

Contribute to the conservation and appropriate development of the forest and wildlife resources. Through training and extension.

DURATION: 1980 to 1982

PROJECT COSTS: EXTERNAL: Soles 33,000,000
GOP: Soles 150,000,000

PROJECT LOCATION: Ucayali

T.P.8

PROJECT NAME: Strengthening of the Service Center of Audiovisual Pedagogy for Training (CESPAC)

DONOR AGENCY: United Nation Development Program (UNDP)

GOP AGENCY: CESPAC

DESCRIPTION:

CESPAC in its first phase (PER/76/003) has developed a system of communication for development through the implementation of audiovisuals aids.

The Minister of Agriculture, with the results obtained, has decided to modify the scope of the system.

OBJECTIVES:

To strengthen of CESPAC to widen the coverage of audiovisual training for farmers.

To implement a system of research, follow-up and evaluation of results.

Provide consultancy services to national and neighboring countries in the design and implementation of audiovisual systems.

DURATION: 1982 to 1986

PROJECT COSTS: EXTERNAL: US$1,000,000
GOP: Not available

PROJECT LOCATION: National level

DONOR REPORT

CODE

CROP RESEARCH = C.R.

C.R.1 = Growing and use of Lupines.

Cuzco, Puno, Ancash, La Libertad

C.R.2 = Development of barley production and other cereals as susstitute of wheat in human nutrition.

La Libertad, Amcash, Cajamarca, Junin, Ayacucho, and Cuzco

C.R.3 = Research and experimental production of colza and other cereals within the highland farming system.

Puno

C.R.4 = Soy bean and corn production in small farm.

National level

C.R.5 = Breeding of the Mediterranean fly (Mosca Med)

Lima

C.R.6 = Detection, prevention, control and erradication of plagues and diseases of the plants in Peru.

National level

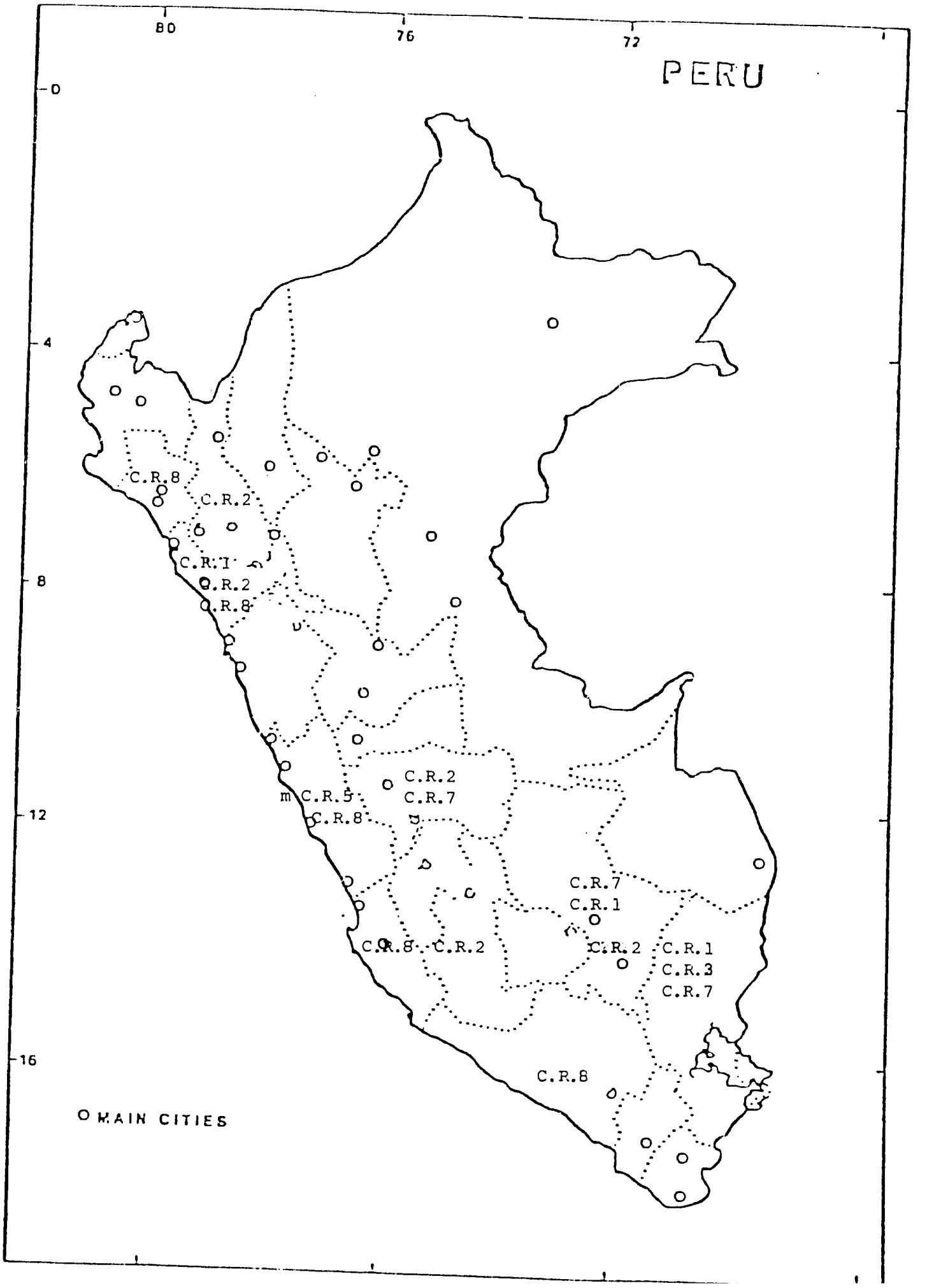
C.R.7 = Production and distribution of quality seeds of improved varieties of quinoa.

Puno, Cuzco and Huancayo

C.R.8 = Bean research and technology transfer in Peru.

La Libertad, Lambayeque, Lima, Ica, Arequipa and Ancash

DONOR REPORT
CROP RESEARCH (See code)



C.R.1

PROJECT NAME: Growing and use of Lupines.

DONOR AGENCY: F.R. Germany

GOP AGENCY: INIPA

DESCRIPTION:

The project has 3 components:

A) Agriculture production activities
B) Processional activities
C) Research and applied nutrition

OBJETIVES:

Increase the productivity and production and through research promote the human consumption and the industrial processing of the surplus.

To raise the nutricional level of the population and the income of the farmers of the highland region.

DURATION: From 1979 to 1983

PROJECT COSTS: EXTERNAL: US$ 2'675,000
GOP: US$ 460,380

PROJECT LOCATION: Cuzco, Puno, Ancash, La Libertad

C.R.2

PROJECT NAME: Development of Barley production and other cereals as susstitute of wheat in human nutrition.

DONOR AGENCY: F.R. Germany

GOP AGENCY: INIPA

DESCRIPTION:

In the highlands of Peru there are extensive areas that are not properly used with crops that with scand high altitude and poor srils. Due that fact it is convenient and necessary to promote the production of barley that is adapted to those soils. The project has 2 components:

A) Agriculture Production Activities, and
B) Research and applied nutrition.

OBJETIVES:

To provide the Peruvian inhabitants mainley of the highlands, more food of high nutritional value through the production of barley and other cereals. Also to increase the income of the producers through the appropiate technology for barley production.

DURATION: From 1980 to 1983

PROJECT COSTS: EXTERNAL: US$307,546
GOP: US$ 78,506

PROJECT LOCATION: La Libertad, Ancash, Cajamarca, Junin, Ayacucho, Cuzco

C.R.3

PROJECT NAME: Research and experimental production of "colza" and other cereals within the highland farming system.

DONOR AGENCY: Canadian International Development Agency (CIDA)

GOP AGENCY: INIPA

OBJETIVES:

Introduction of the "colza" crop in Puno and its agro-industrial processing to supply the nutritional deficiencies in oils and at the same time take advantage of the experiences to promote its expansion in similar ecological zones.

DURATION: From 1977 to 1983

PROJECT COSTS: EXTERNAL: C.D.$3'300,000
GOP: US$ 56,426

PROJECT LOCATION: Puno and localities of Yanguyo, Buena Vista, Taraco

C.R.4

PROJECT NAME: Soybean and corn production on small farms.

DONOR AGENCY: AID
GOP AGENCY: INIPA

OBJECTIVES:

A) Subproject: Soft corn
- -to increase the production and productivity
- -to improve the nutritive value of the grain
- -to determine its appropiate technology

B) Subproject: Soybean
- -to pet improved varieties with high yield in grain, food content of oil and protein, precocity and resistance to adverse factors.

DURATION: From 1977 to 1981

PROJECT COSTS: EXTERNAL: US$1'909,000
GOP: US$1'764,000

PROJECT LOCATION: National level

COMMENTS:

The project has finished and the final evaluation is being prepared.

C.R.5

PROJECT NAME: Breeding of the Mediterranean Fly (MOSCA MED)

DONOR AGENCY: USDA

GOP AGENCY: INIPA

DESCRIPTION:

It has been finished the breeding laboratory with a capacity of 100-250 million flies.

OBJECTIVES:

To study the distribution, gradation and kinds of hosts of the fruit fly.
To study the sexual sterilization.
To development methods of chemical and biological control.

DURATION: From 1980 to:not determined yet

PROJECT COSTS: EXTERNAL: US$ 106,000 for 1980 (figures for other years are not available)
GOP: Not determined

PROJECT LOCATION: CIPA V-LIMA

COMMENTS:

The project is developing satisfactorily and there are plans for convertiory it, in an Inteprate Pest Management System.

C.R.6

PROJECT NAME: Detection, prevention, control and erradication of plagues and diseases of the plants in Peru.

DONOR AGENCY: USDA

GOP AGENCY:

Planning and exemtion of actions aimed to the pletection, prevention, control and for erradication of plagues and disseases of planes of economic importance that affect and threaten the crops of Peru and United States.

DURATION: From 1981 to indefinite duration

PROJECT COSTS: EXTERNAL: Not determined
GOP: Not determined

PROJECT LOCATION: National level

C.R.7

PROJECT NAME: Production and distribution of quality seeds of improved varieties of quinoa.

DONOR AGENCY: FAO

GOP AGENCY: INIPA

DESCRIPTION:

Quinoa is a native crop of the highlands of Peru. The grain protein content of quinoa is higher than that of wheat, barley or corn and also the aminoacid content of those proteins are of high value for human nutrition.

OBJECTIVES:

Produce 50,000 Kgs. of good quality seeds and distribute them to the quinoa producers.
Select three areas of seed production (Puno, Cuzco, and Huancayo).
Select producers for seed increase to be distributed.
Train local technicians in seed.

DURATION: 1 year after the shiping of the operative plan.

PROJECT COSTS: EXTERNAL: US$440,000
GOP: US$160,000

PROJECT LOCATION: Southern Highland of Peru.

C.R.8

PROJECT NAME: Bean research and technology transfer in Peru.

DONOR AGENCY: CIAT (INTERNATIONAL CENTER OF TROPICAL AGRICULTURE)

GOP AGENCY: INIPA

OBJECTIVES:

Increase bean yields in productive areas of the country.
Meat the demand of improved seed (resistant to diseases and insects)
Establish a training program in bean production.

DURATION: From 1980 to 1983

PROJECT COSTS: EXTERNAL: US$392,400
GOP: US$297,410

PROJECT LOCATION: La Libertad, Lambayeque, Lima, Ica, Arequipa, Ancash.

F.G.

DONOR REPORT

CODE

FORESTRY GENERAL = F.G.

F.G.1 = Introduction Trials of Forest species for reforestation purpose

Cajamarca

F.G.2 = Training Program for the forest development project and the wood industry in Peru

National level

F.G.3 = Institutional support to the forest sector in Peru

National level

F.G.4 = National inventory of projects of the forest sector

National level

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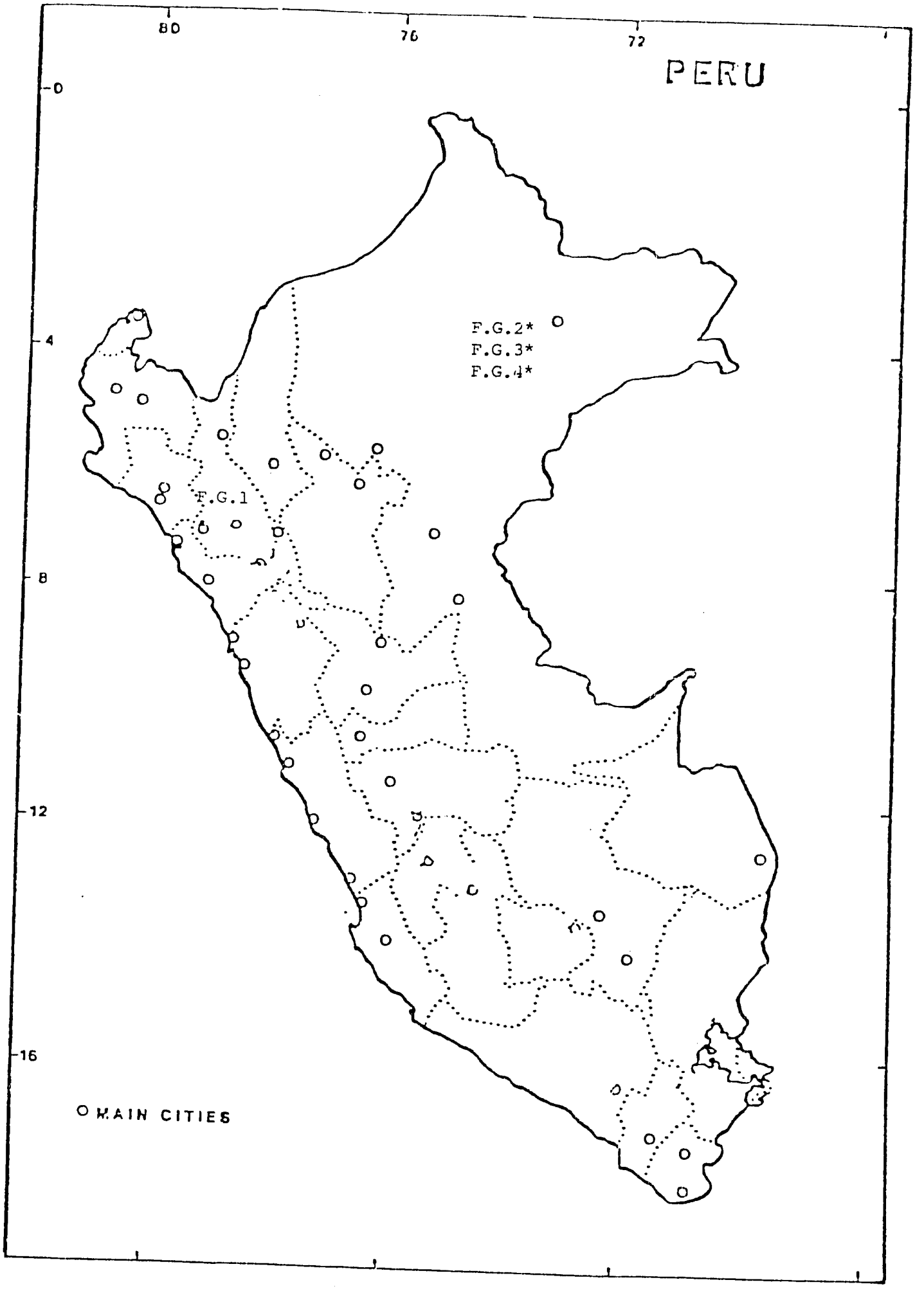
*Means national level in the map.

DONOR REPORT
FORESTRY GENERAL = F.G. (See Code)



F.G.1

PROJECT NAME: Introduction Trials of Forest Species for reforestation purpose.

DONOR AGENCY: Government of Belgium

GOP AGENCY: INFOR

DESCRIPTION:

Valuable results in basic forest technology have been obtained for the soil-climatic conditions of Cajamarca.

OBJECTIVES:

To formulate the technological and scientific base and train personnel in forestry to get the desired results in the programs of reforestation in Cajamarca.

DURATION: 1976 to 1985

PROJECT COSTS: EXTERNAL: Fr. Bel. 93'071,000 = US$186,142
GOP: Soles 731'686,170 = US$1'463,372

LOCATION: Cajamarca

F.G.2

PROJECT NAME: Training Program for the Forest, Development Project, and the Wood Industry in Peru.

DONOR AGENCY: Goverment of Canada -#CDI

GOP AGENCY: Dirección General Forestal y de Fauna

DESCRIPTION:

The project started originally in 1977 and should had ended in 1979. But in 1980 the "Committee of Permanent Evaluation" suggested an extension of the project but only taking care of training compartment.

OBJECTIVES:

To structure a qualified team that will be responsible of the Management of the program to be developed within the forestarca and the wood industry in the next few years.
To train young profesors and graduates from the universities.

DURATION: 1981 to 1984

PROJECT COSTS: EXTERNAL: US$820,000
GOP: US$400,000

LOCATION: National Local

F.G.3

PROJECT NAME: Institutional Support to the Forest Sector in Peru.

DONOR AGENCY: Government of Canada -ACOI

GOP AGENCY: Dirección General de Forestal y Fauna
INFOR
Pichis-Palcazu Special Project

DESCRIPTION:

This project has 3 sub-projects

A) Technical support from the Forestry Program of Canada to Dirección General Forestal y de Fauna.

B) To increase the technical capacity of INFOR.

C) Support to the Excecutive Committee of Pichus-Polcaza-Pachitea Special project.

OBJECTIVES:

To increase the management capacity of the Peruvian institutions involved in the Forest sector, also its capacity to promote the conservation of natural resources.

DURATION: 1982 to 1986

PROJECT COSTS: EXTERNAL: Can.$5'500,000 = US$5'500,000
GOP: Can.$1'500,000 = US$1'500,000

LOCATION: National level

F.G.4

PROJECT NAME: National Inventory of Projects of the Forest Sector

DONOR AGENCY: IDB

GOP AGENCY: Dirección General Forestal y de Fauna

DESCRIPTION:

IDB's President, through letter sent to INP, offered assistance to technical institutions to elaborate an inventory of projects in the forests sector.

OBJECTIVES:

To establish a priority in the investment opportunities in the forest sector identifying specific projects within this sector.

Sistematically called the marketing and statistical information of the forest sector.

DURATION: 45 days (1982)

PROJECT COSTS: Not available

LOCATION: National level

DONOR REPORT

CODE

MARKETING = MAR.

MAR.1 = Improvement of the marketing system of Horticultural crops

Lima

MAR.2 = *Reduction of post-harvest losses of potato and primary processing.

National level

MAR.3 = Main Market of the city of Lima

Lima

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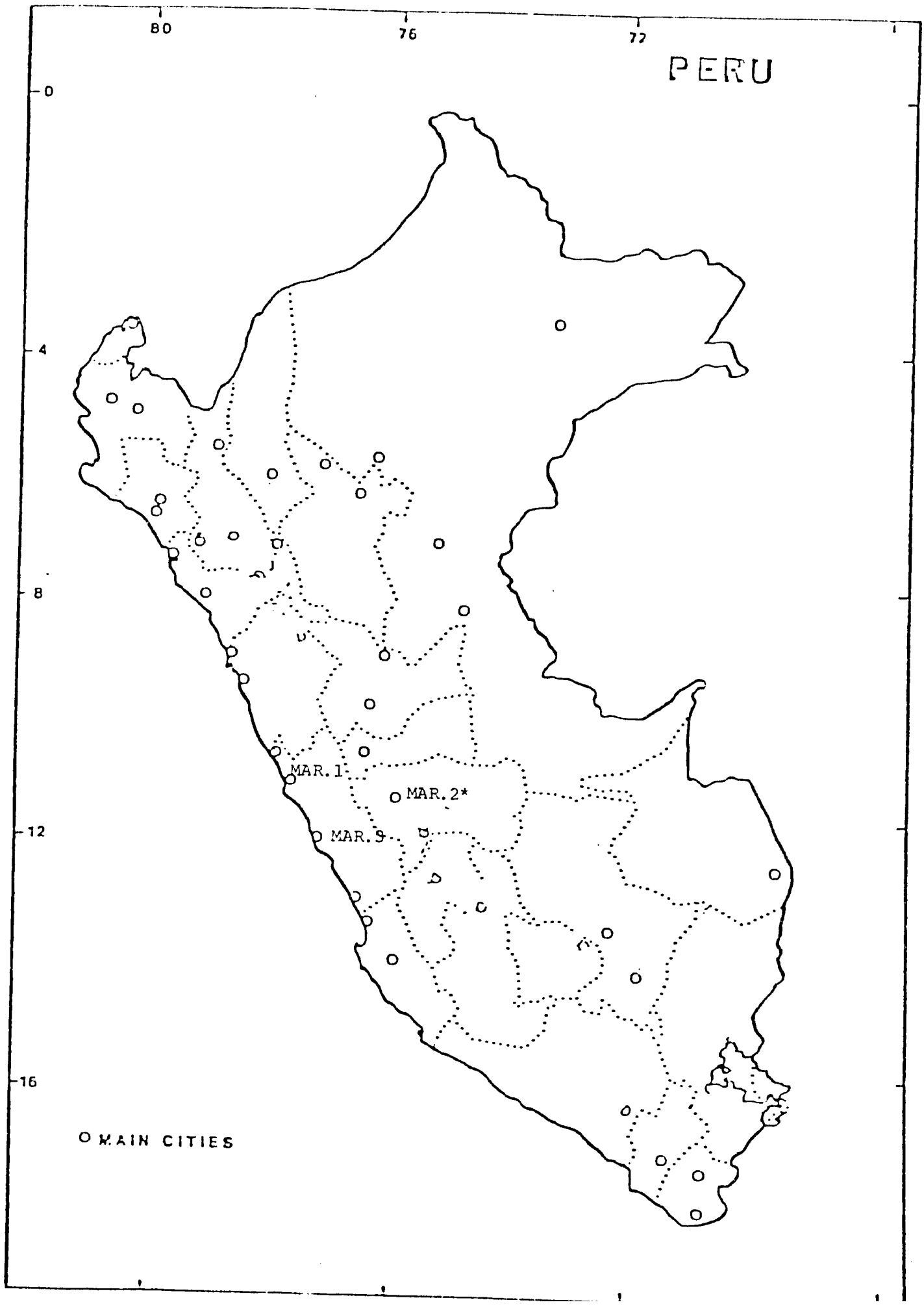
*Means national level in the map

DONOR REPORT
MARKETING = MAR.



MAR.1

PROJECT NAME: Improvement of the marketing system of horicultural crops.

DONOR AGENCY: Government of Japan

GAP AGENCY: Dirección General de Agroindustria y comercialización

DESCRIPTION:

GOP requeste technical cooperation from the government of Japan in marketing of horticultural crops. Japan sent 2 missions (1978 and 1979) to make viable the project.

OBJETIVES:

To plan and design infrastructure appropiate for a system of recolection, transport and distribution of horticultural crops.

DURATION: 1981 to 1983

PROJECT COSTS: EXTERNAL: US$52,000
GOP: US$46,000

LOCATION: Lima

MAR.2

PROJECT NAME: Reduction of post-harvest losses of potatoe and primary processing

DONOR AGENCY: FAO

GOP AGENCY: Dirección General de Agroindustria y Comercialización

DESCRIPTION:

Post-harvest and price fluctuacions due to a lack of storage in potatoes, were reasons for GOP to ask for technical assistance from FAO. Already there are 6 pilot center of storage and some agreements with producers to direct those centers.

OBJECTIVES:

To do demostrations of potatoe storage, improve the marketing system, train producers, extensionists and professionals of the sector.

DURATION: 1981 to 1983

PROJECT COSTS: EXTERNAL US$335,160
GOP US$ 40,000

LOCATION: National

MAR.3

PROJECT NAME: "Gran Mercado Mayorista" of the city of Lima

DONOR AGENCY: FAO

GOP AGENCY: Empresa de Mercados Mayoristas S.A.

OBJECTIVES:

To elaborate a document that meet the needs of a request for financial assistance for the building of "Mercado Mayorista" of Lima.

DURATION: 6 months

PROJECT COSTS: EXTERNAL: US$40,000
GOP: US$65,000

COMMENT: No information available on its excurtion

DONOR REPORT

CODE

AGRO-INDUSTRY = AG.I.

AG.I.1 = Sugar industry in Shapumbales

San Martin

AG.I.2 = Sugar-Alcohol Selva

Selva-Iquitos

AG.I.3 = Aguaje use

Selva-Iquitos

AG.I.4 = Rehabilitation of the Tea industry in Peru- REINTEP

Cuzco and Huánuco

AG.I.5* = National Program of milk processing plants

National level

AG.I.6 = Assistance program to Tocache oil palm factory

San Martin

AG.I.7 = Development program for the Agro-Industry in Peru

Lima

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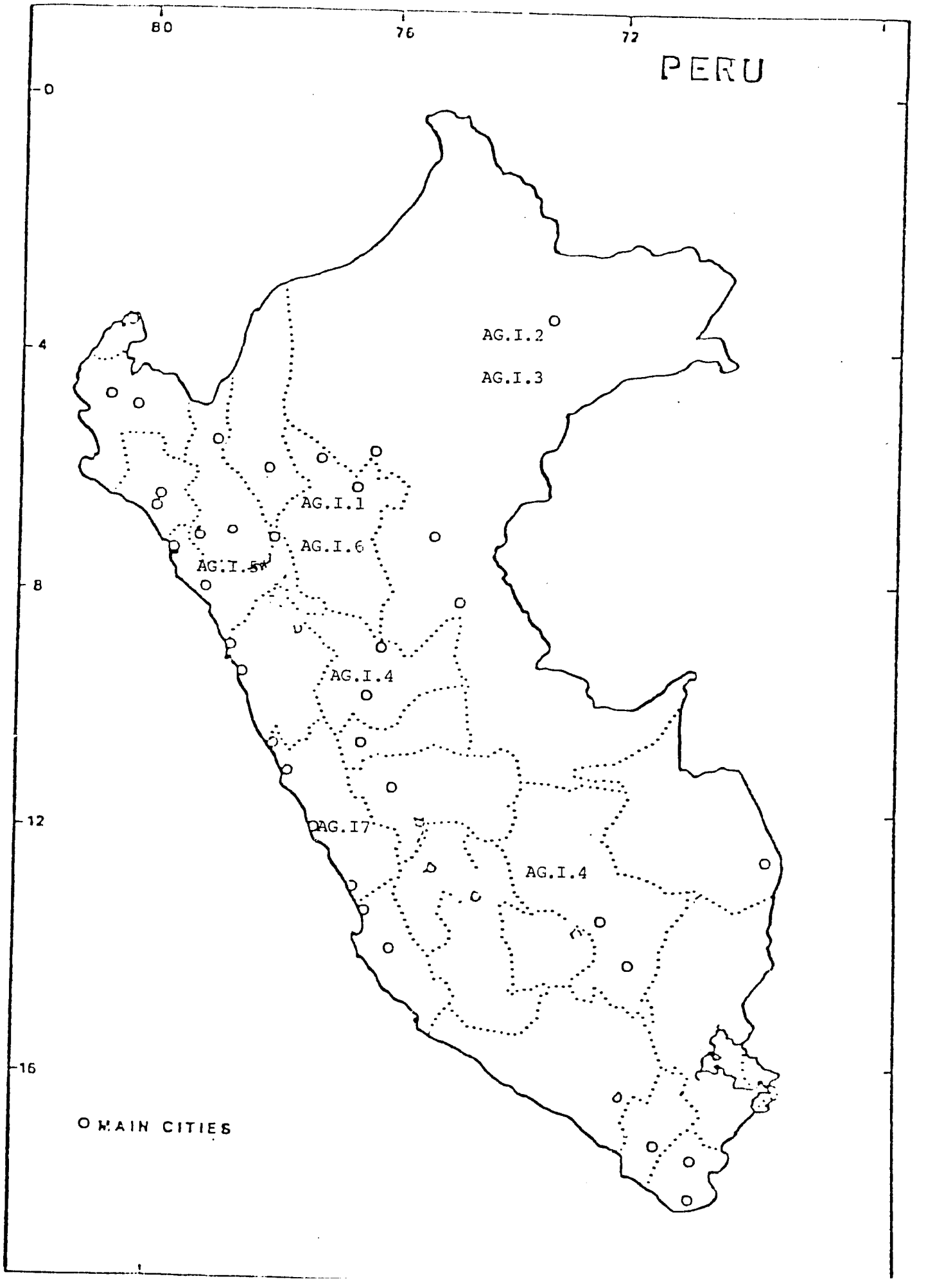
*Means National level in the map.

DONOR REPORT
AGRO-INDUSTRY = AG.I.(See Code)



AG.I.1

PROJECT NAME: Sugar Industry in Shapumbales

DONOR AGENCY: Government of England

GOP AGENCY: Plan Selva Special Project

OBJECTIVE:

To take advantage of the Shapumbales soils.

DURATION: 1 year

PROJECT COSTS: EXTERNAL: US$400,000
GOP: US$100,000

LOCATION: San Martin

COMMENTS: The project could start in 1983

AG.I.2

PROJECT NAME: Sugar-Alcohol Selva

DONOR AGENCY: Government of Italy

GOP AGENCY: Plan Selva Special Project

OBJECTIVES:

To study the creation of the sugar industry in Selva not only for sugar production but alcohol also.

DURATION: 16 months

PROJECT COSTS: EXTERNAL: US$1'000,000
GOP: US$70,000

LOCATION: Selva

COMMENTS: This project has not started yet

AG.I.3

PROJECT NAME: Aguaje use

DONOR AGENCY: Government of Italy

GOP AGENCY: Plan Selva Special Project

OBJETIVES:

To study aguaje exploitation for extraction of edible oils.

DURATION: 1983 to 1985

PROJECT COSTS: EXTERNAL: US$5'000,000
GOP: US$1'000,000

LOCATION: Iquitos

COMMENT: Project has not started yet

AG.I.4

PROJECT NAME: Rehabilition of the tea industry in Peru-REINTEP

DONOR AGENCY: Government of Holland

GOP AGENCY: INIPA, Central de CAP's Té Huyro Ltda. Nª 43, Cooperativa Jardined de Té El Porvenir Ltda. Nª 10.

OBJECTIVES:

To improve tea expliitation in its different aspects, processing, marketing and training for the personnel involved in the project.

To promote social and economic development, reducing the unemployment situation.

DURATION: 1978 to 1982

PROJECT COSTS: EXTERNAL: US$2'600,000
GOP: US$1'567,720

LOCATION: Cuzco and Huánuco

COMMENTS:

Very little has been accomplished in this project. Administrative and technical aspects have been the critical areas.

AG.I.5

PROJECT NAME: NationallProgram of Milk Processing plants

DONOR AGENCY: Government of Holland

GOP AGENCY: Oficina General de Ingeniería

DESCRIPTION:

This project is a complement of a loan for the adquisition of 5 milk processing plants for a total of US$6.7 millions.

OBJECTIVES:

Technical support in the design, construction, installation and functioning of 5 milk processing plants located in Sullana, Tacna, Trujullo, Cuzco and Iquitos.

DURATION: 1980 to 1983

PROJECT COSTS: EXTERNAL: US$988,000
GOP: US$260,000

LOCATION: National level

COMMENT:

Only the milk processing plants in Sullana and Tacna are operating.

AG.I.6

PROJECT NAME: Assistance program to Tococha oil palm factory

DONOR AGENCY: Government of Holland

GOP AGENCY: Empresa para el Desarrollo de la Palma Aceitera S.A. (EMDEPALMA)

OBJECTIVES:

Technical assistance for the implementation of a second line of processing for 10 metric tons/hr in order to get a final capacity of 20 metric tons/hr.

DURATION: 1979 to 1982

PROJECT COSTS: EXTERNAL: US$250,000
GOP: US$1'040,000

LOCATION: San Martin

AG.I.7

PROJECT NAME: Development program for the Agro-industry in Peru

DONOR AGENCY: PNDU/FAO

GOP AGENCY: Instituto Nacional de Desarrollo Agro-industrial (INDA)

OBJECTIVES:

To stregthen INDA to fultill its objectives, promoting and developing agro-industry activities in the country.

DURATION: 5 years

PROJECT COSTS: EXTERNAL: US$1'176,000
GOP: Not determined

LOCATION Lima

COMMENT:

The project has not started yet, but has been signed in Rome.

DONOR REPORT

CODE

REFORESTATION COSTA = R.COS

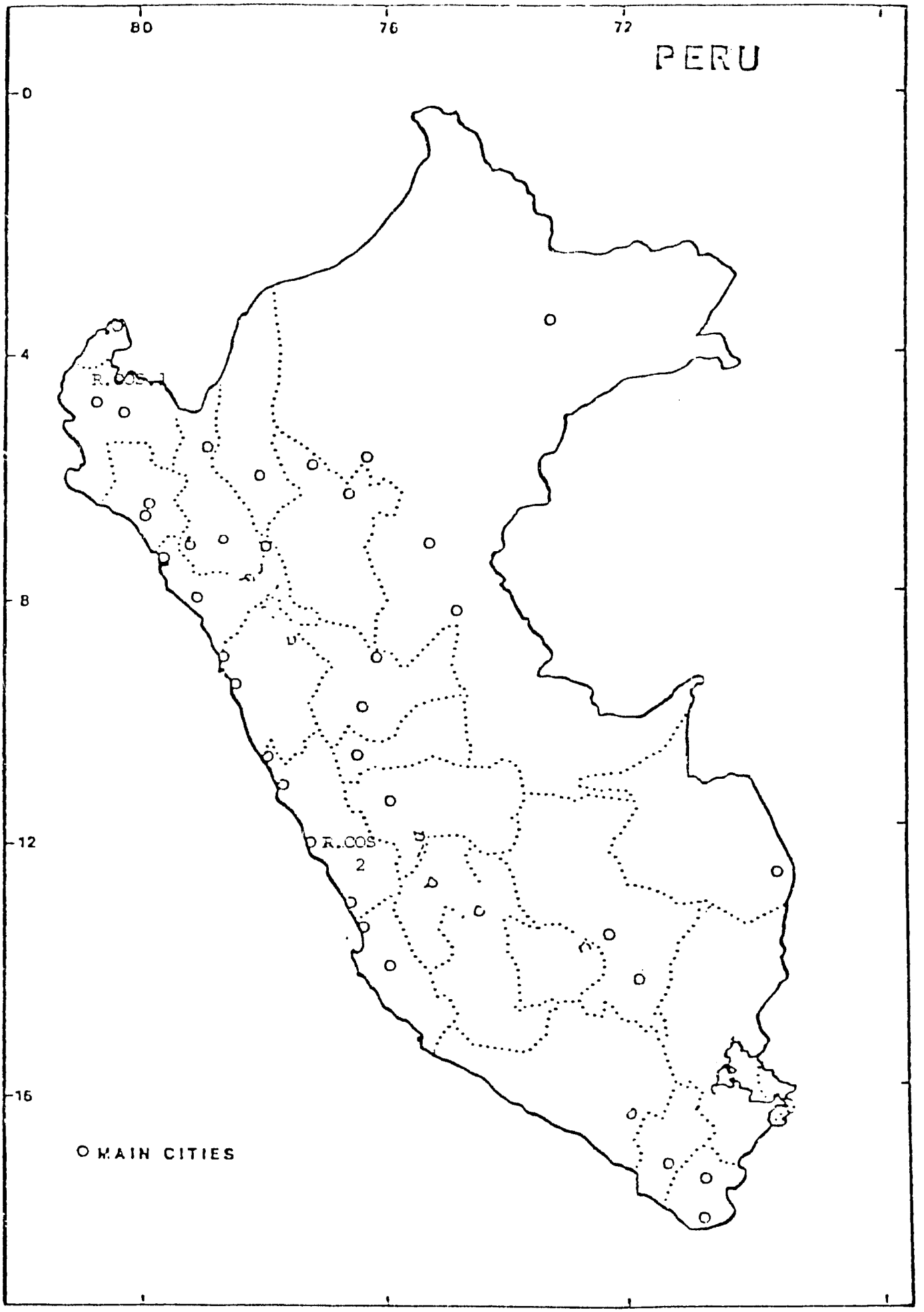
R.COS.1 = Colonization and development in the dry areas in the northen coast

Piura

R.COS.2 = Use of "nieblas costeras" (Cananchacas) in the arid zones of the Peruvian Coast

Lima

DONOR REPORT
REFORESTATION COSTA = R.COS. (See Code)



R.COS.1

PROJECT NAME: Colonization and development in dry areas in the Northen coast.

DONOR AGENCY: Government of Italy - IILA

GOP AGENCY: INFOR

OBJECTIVES:

To develop in the first base 3 pilot areas to test a system of production with "Algarrobo" (Prosopis sp) as a base and then adding areas of poustures and other crops that will permit the production of honey bee and cattle.

DURATION: 3 years

PROJECT COSTS: EXTERNAL: US$1'700,000
GOP: US$ 400,000

LOCATION: Piura

COMMENTS: Innegotiation

R.COS.2

PROJECT NAME: Use of "nieblas costeras" (Cananchacas) in the arid zones of the Peruvian coast.

DONOR AGENCY: IDB & UNESCO

GOP AGENCY: Dirección General de Forestal y Fauna, National Agrarian University
SENAMHI
ONERN & CONCYTEC

DESCRIPTION: UNESCO taking in consideration the recommendations on water and desertification and the progress made by Chile and Peru in the biological and physical aspects of the cloud phenomenon (Cananchacas); decided to launch the study of this phenomenon taking in account its use as a water resource.

OBJECTIVES: Systematic evaluation of forest areas with species selected through the use of artificial devices to get water from the clouds.
To prevent, and revert the process of desertification of the coastal ecosystems, providing potable water to small communities within the project area.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$1'250,000
GOP: US$400,000

LOCATION: Lima (Lomas de Lachay & Pasamayo)

COMMENTS: The request of the technical cooperation is still in process.

DONOR REPORT

CODE

REFORESTATION SELVA = R.SEL.

R.SEL.1 = Reforestation in Central Selva

Pasco and Junin

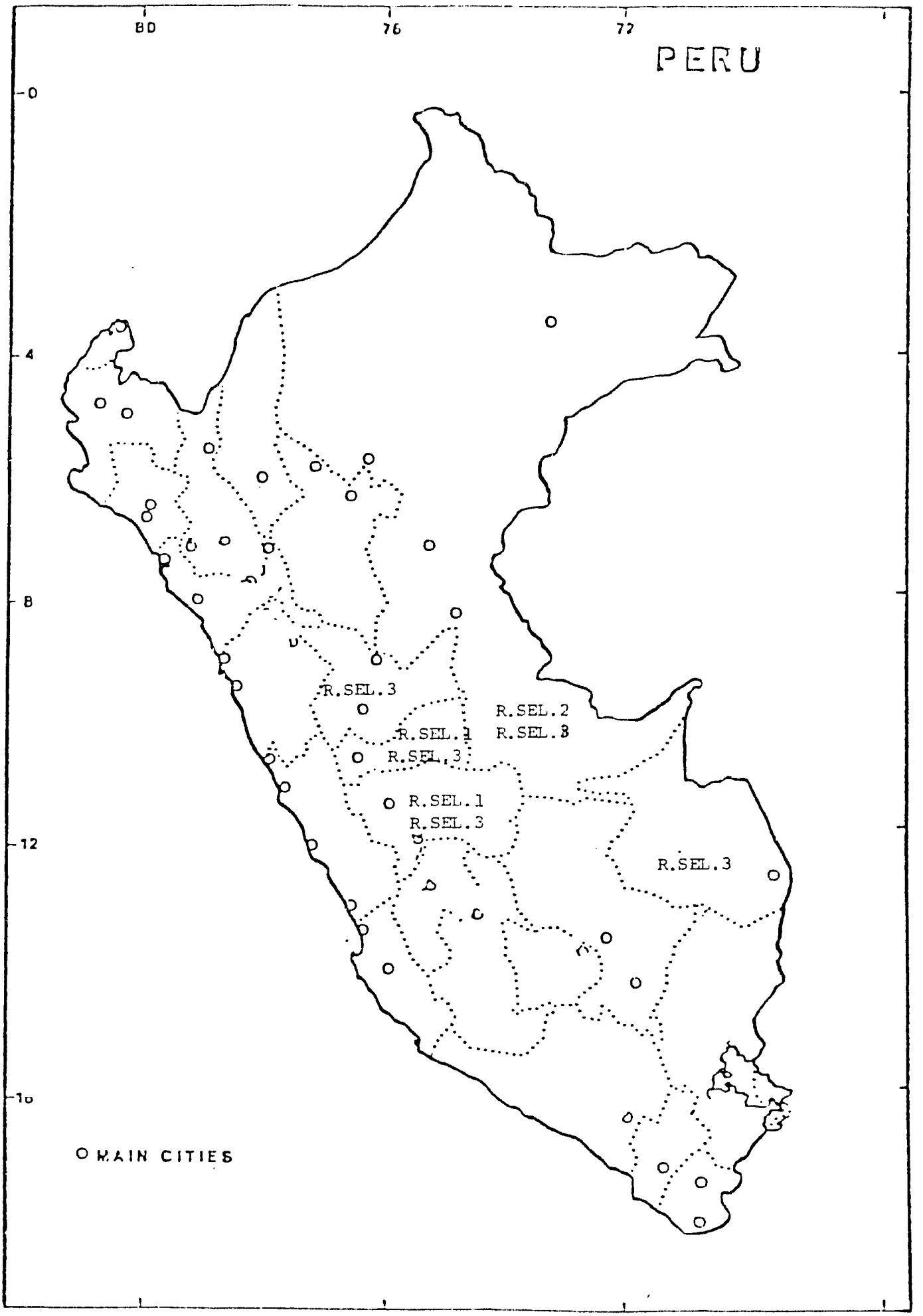
R.SEL.2 = Research and experimentation in regeneration of forest in the Amazon area of Peru.

Ucayali

R.SEL.3 = Strenghtening of the programs of forest development in in Central Selva.

Pasco, Junin, Huánuco, Ucayali, Madre de Dios

DONOR REPORT
REFORESTATION.SELVA = R.SEL. (See Code)



R.SEL.3

PROJECT NAME: Strengthening of the program of forest development in Central Selva

DONOR AGENCY: PNUD/FAO

GOP AGENCY: INFOR

DESCRIPTION:

This project is an outgrouth of the project: "Improvement of the systems of extraction and wood processing" (1978-1981) developed in Pucallpa and Iquitos.

OBJECTIVES:

To identify the critical factors involved in the development of the forestry activities in the Central Selva and propose the adequate solutions to overcome those limiting factors.

To promote the increase of forest production and productivity, improving the quality and aggregate value of the forest explotation.

DURATION: 1982 to 1983

PROJECT COSTS: EXTERNAL: US$588,000
GOP: Soles 130'500,000 = US$261,000

LOCATION: Pasco, Junin, Huánuco, Ucayali, Madre de Dios

R.SEL.1

PROJECT NAME: Reforestation in Central Selva

DONOR AGECNY: F.R. Germany

GOP AGENCY: INFOR

DESCRIPTION:

The project operates with 4 stations, each station has one nursery (San Ramon, Pichanaki, Villa Rica and Oxapampa). The nurseries have produced about 330,000 seedlings, mainly ulcumano, nogal, cedro and tomillo. Also 150 has. of final plantings have been established up to Dec. 1981.

OBJECTIVES:

To develop techniques that can be applied to reforestation using native species in the high jungle.

To control erosion in the denuded areas.

DURATION: 1980 to 1985

PROJECT COSTS: EXTERNAL: US$1'128,000
GOP: US$1'206,000

LOCATION: Pasco and Junin

R.SEL.2

PROJECT NAME: Research and experimentation in regeneration of forest in the Amazon Area of Peru.

DONOR AGENCY: Government of Japan

GOP AGENCY: INFOR

OBJECTIVES:

To establish a demostration are (forest) to develop the appropiate techniques in natural and artificial regeneration leading to the conservation of the humid tropic forest in the amazon area.

DURATION: 5 years

PROJECT COSTS: Not determined

LOCATION: Ucayalli (Coronel Portillo)

COMMENTS:

*A reconassaince trip to Pucallpa has been made by the Japanese Mission, but the operative plan is not yet ready.

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*Check with INFOR for up to date information

DONOR REPORT

CODE

REFORESTATION SIERRA = R.SIE.

R.SIE.1 = Introduction trials of forest species in the Sierra with nursery and planting techniques.

Lima, Cusco, Ancash, Junin

R.SIE.2* = Forest plantings for energy purpose and for the development of the rural communities in the Sierra.

National Level

R.SIE.3 = Pilot reforestation in Cajamarca

Cajamarca

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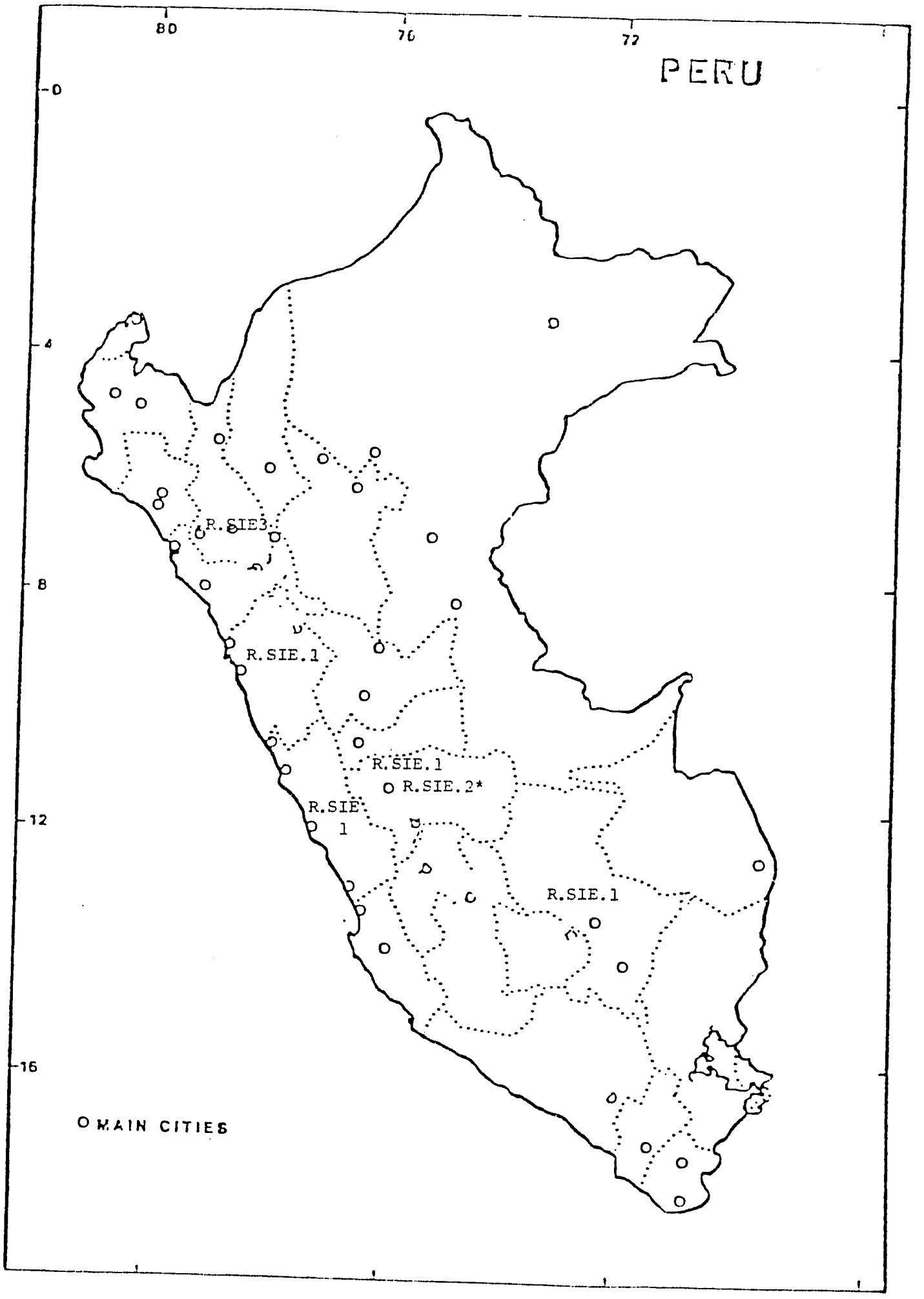
*Means National Level in the map.

DONOR REPORT
REFORESTATION SIERRA = R.SIE. (See Code)



R.SIE.1

PROJECT NAME: Introduction trials of forestsspecies in the Sierra with nursery and planting techniques.

DONOR AGENCY: Government of Canada -CIID

GOP AGENCY: INFOR

DESCRIPTION:

The project is establishing trials of species adaptation in Cuzco, Huaraz and Huancayo.

16 species of Eucaliptus and 16 species of Comifers are being used.

OBJECTIVES:

Identify appropiate species and techniques to establish forest plantings in depressed areas in the high lands and in the ariel area of Peruvian coast.

To do additional research to determine the possibility, from the economical and technical point of view, of association between forest and pasture plantings.

DURATION: 1977 to 1983

PROJECT COSTS: EXTERNAL: Soles 80'477,000 = US$160,954
GOP: Soles 32'836,000 = US$ 65,672

LOCATION: Lima, Cuzco, Ancash, Junin.

R.SIE.2

PROJECT NAME: Forest plantings for energy purpose and for the development of the rural communities in the Sierra.

DONOR AGENCY: FAO

GOP AGENCY: INFOR

OBJECTIVES:

To raise the income of the small farmers in the Sierra through the establishment of cooperative programs of forest plantings.
To sthrengthen the capability of INFOR.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$4'940,132
GOP: US$8'939,745

LOCATION: National level

R.SIE.3

PROJECT NAME: Pilot reforestation in Cajamarca

DONOR AGENCY: European Economic Community (CEE)
Government of Belgium

GOP AGENCY: INFOR

OBJECTIVES:

To establish forest planting specially with Pinus with the appropiate technics.

To organize and train the personnel involved and to promote the management capacity (specially with the use of financial resources) to keep going with the project after the end of the agreement.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$4'500,000 (from Belgium)
US$1'750,000 (from CEE)
GOP: Not determined

LOCATION: Cajamarca

COMMENTS: Started in 1983

DONOR REPORT

CODE

WATER MANAGEMENT = W.M.

W.M.1 = Technical Assistance for the Improvement of the Operation and Conservation of the Watering District Chancay - Lambayeque

Lambayeque

W.M.2 = Extension of the Agricultural Frontier through Irrigation Techniques

Piura, La Libertad, Ancash, Ica, Puno and Tacna

W.M.3* = Training in Operation, Maintenance and Administration of Watering Districts

National Level

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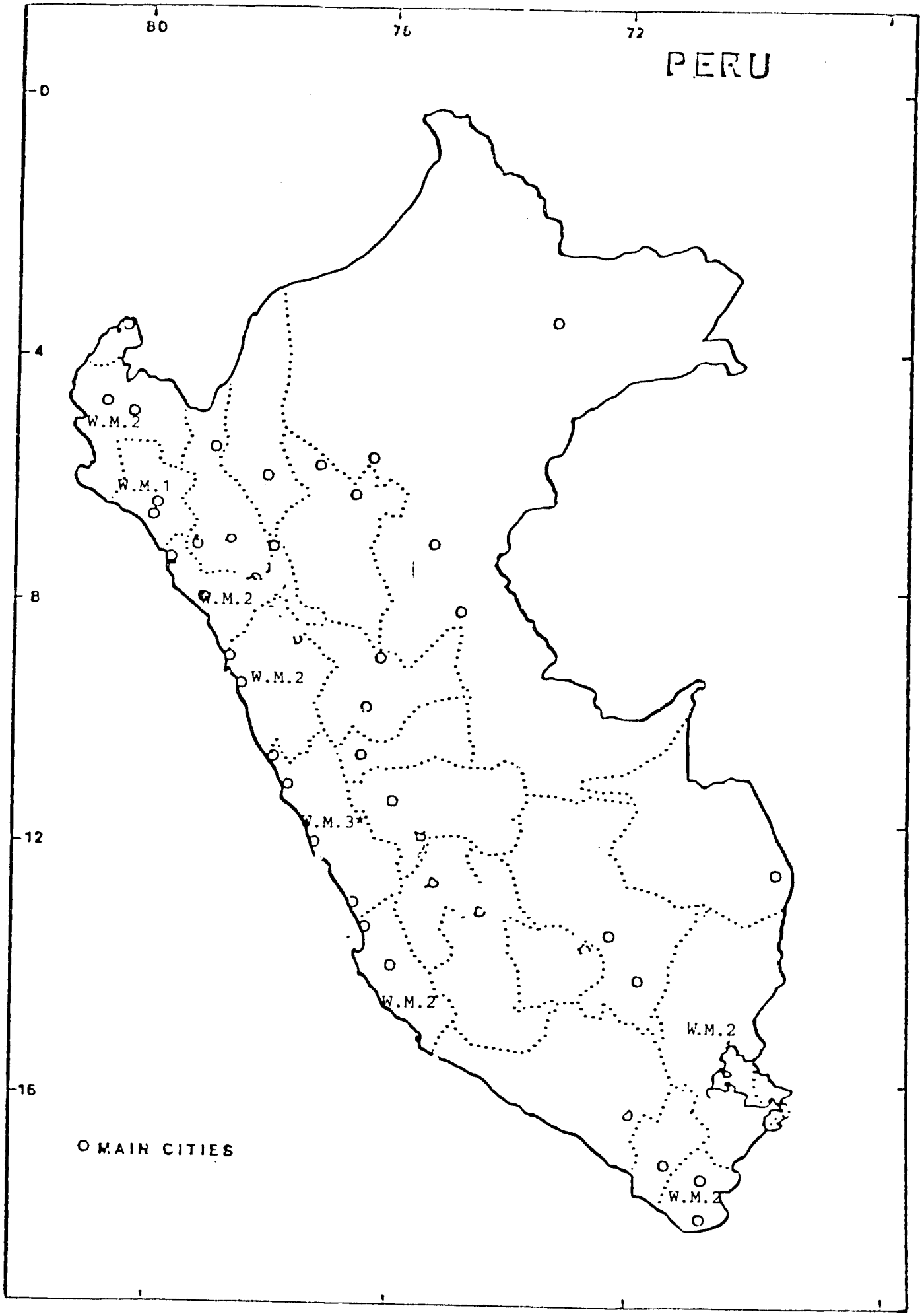
*Means national level in the map.

DONOR REPORT
WATER MANAGEMENT = W.M. (See Code



W.M.1

PROJECT NAME: Technical Assistance for Improvement of the Operation and Conservation of "Distrito de Riego Chancay-Lambayeque" (expansion of Tinajones Project)

DONOR AGENCY: F. R. Germany

GOP AGENCY: MAG - Lambayeque

DESCRIPTION:

Project started in 1979 as a complement to the former project "Agricultural Development in the Area Involved in the Tinajones Project".

OBJECTIVES:

To improve operations of the Water District.

To make better use of the Tinajones Dam in the execution of irrigation for crop production.

To install the equipment and maintenance for the major irrigation and drainage infrastructure work.

DURATION: 1981 to 1983

PROJECT COSTS: EXTERNAL: US$1,691,517
GOP: US$42,731

LOCATION: Lambayeque (Chancay - Lambayeque)

W.M.2

PROJECT NAME: Extension of the Agricultural Frontier through Irrigation Techniques

DONOR AGENCY: Government of France

GOP AGENCY: INAF

DESCRIPTION:

Project started in 1979. In 1981 a Mission arrived from France for the II phase of the project (1982-1985). INAF is preparing the agreement for the II phase.

OBJECTIVES:

Training in underground water use and exploitation.

Development and evaluation projects involving the use of under and above ground water for irrigation.

DURATION: 1979-1982

PROJECT COSTS: EXTERNAL: US$275,180
GOP: US$ 66,280

LOCATION: Piura, La Libertad, Ancash, Ica, Puno and Tacna.

COMMENTS: This project is suspended (II phase)

W.M.3

PROJECT NAME: Training in Operation, Maintenance and Management of Watering Districts

DONOR AGENCY: BID

GOP AGENCY: Direccion General de Aguas, Suelos e Irrigaciones (DGASI)

DESCRIPTION:

Three levels were considered in 1977 for training in operation, maintenance and management of water in Peru: Professionals, post-high school and users. The agreement was signed in 1981.

OBJECTIVES:

To train personnel responsible for the development, operation, maintenance and management of watering districts to obtain the highest efficiency in such activities.

DURATION: 1982 to 1985

PROJECT COSTS: EXTERNAL: US$1,250,000
GOP: US$ 230,000

LOCATION: National level

DONOR REPORT

CODE

RURAL DEVELOPMENT = R.D.

R.D.1 = Rural colonization groups in Pucallpa

Ucayali

R.D.2 = Support to Ayacucho Rural Development

Ayacucho

R.D.3 = Support program of Native Communities

Loreto

R.D.4 = Rural Colonization group in "Jenaro Herrera"

Loretol

R.D.5 = Ag. Research and extension in Palcazu-Pichis valleys.

Huánuco, Huancayo, Pucallpa

R.D.6 = Rural Development Project. Alto Mayo Agricultural Research and Extension.

San Martin.

R.D.7 = Rural Development of Puno

Puno

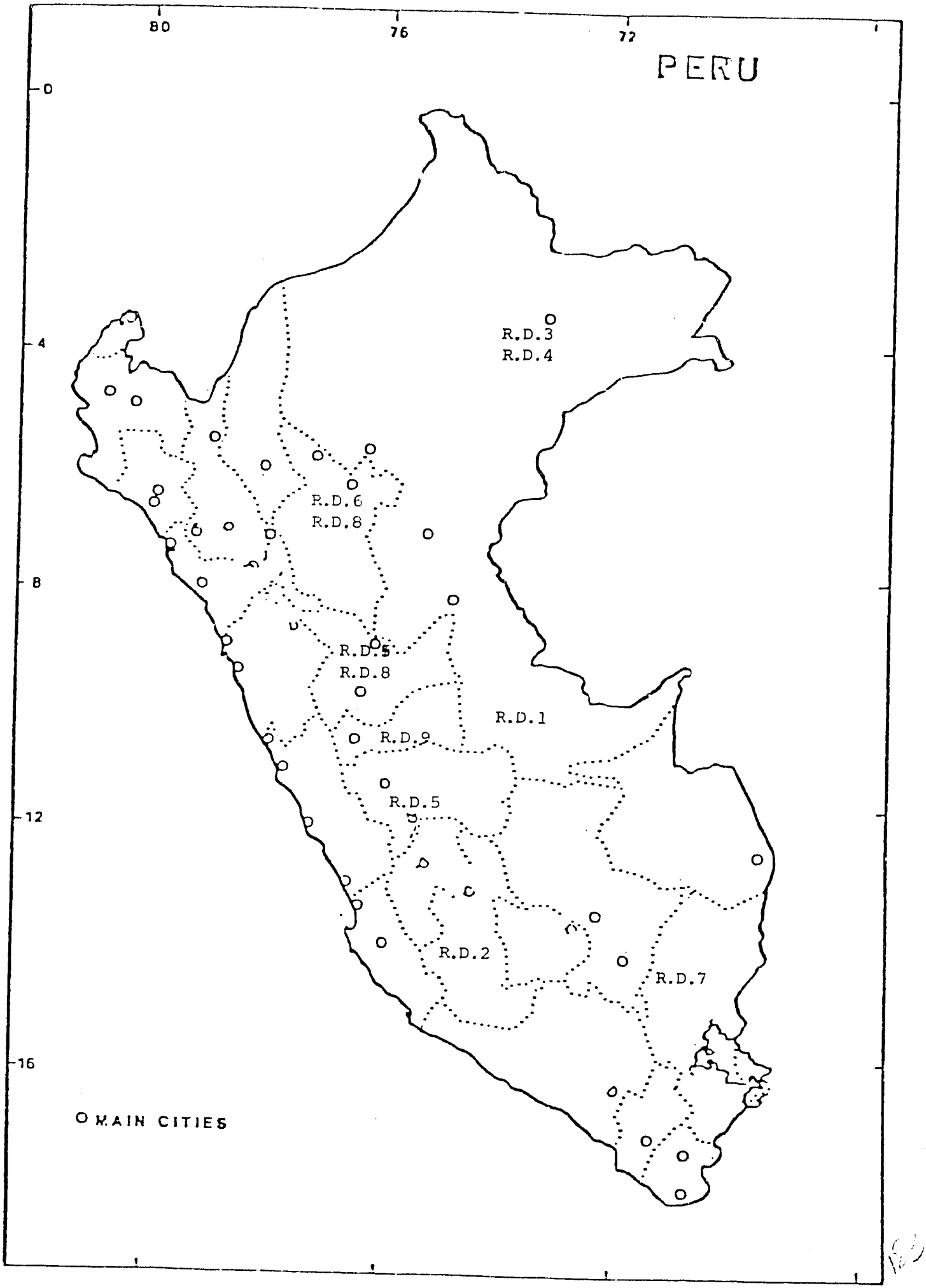
R.D.8 = Upper Huallaga Special Project

Huánuco, San Martín

R.D.9 = Central Selva Resource Management Project

Cerro de Pasco

DONOR REPORT
PURAL DEVELOPMENT = R.D. (See Code)



RUR.D.1

PROJECT NAME: Rural Colonizations Groups in Pucallpa .

DONOR AGENCY: Government of Belgium

GOP AGENCY: Pichis-Palcazu Special Project

DESCRIPTION:

Through this project, it is emphasized the organized setlement of the farmers to fully exploit rationally the forest, soils, fishing and wildlife.

OBJECTIVES:

To elaborate sequences of rural colonization groups establishment taking in consideration the socio economic and ecological conditions of the low jangle of Peru.

Development and adaptation of technics of perennial crops, livestock, forest management, fishing and hunting for the colonization groups.

DURATION: 1977 to 1982

PROJECT COSTS: EXTERNAL: US$190,000
GOP: US$ 75,000

LOCATION: Ucayali

RUR.D.2

PROJECT NAME: Support to Rural Development - Ayacucho

DONOR AGENCY: Technical Cooperation of the Switzerland Government (COTESW)

GOP AGENCY: Región Agraria XVIII

DESCRIPTION:

This project is a follow-up of the one established between the Univ. San Cristobal Huamanga and COTESA from 1965-1976. The idea was to implement a project in pastures and livestock in the highlands of Huamanga.

OBJECTIVES:

To improve life conditions (health and nutrition) in the highlands of Ayacucho, consolidating the economic-productive base of each community and emphasizing the community work approach.

DURATION: 1982 to 1984

PROJECT COSTS: EXTERNAL: Fr.s. 3'700,000 = US$1'850,000
GOP: Not determined

LOCATION: Ayacucho

COMMENTS:

The project was suspended at the end of 1982 due to the recent problems in the area.

RUR.D.3

PROJECT NAME: Support Program of Native Communities

DONOR AGENCY: Government of Switzerland

GOP AGENCY: COR DE LORETO

DESCRIPTION:

The communities (etnic groups) Yagua, Huitoto, Bora, Ocaina, Ticuna, Orejón-Coto and Matses are directly mooved.

In the first phase the interchange relation ships were established between these communities and the public administration.

OBJECTIVES:

To guarantee for the communities a path of development compatible with their ways and life style, in equilibrium with their environment.

To establish interchange relationships between the native communities and the public administration and research institutions based on reciprocity for any support to the communities.

To define and asses the culture content of the native communities.

DURATION: 1980 to 1986

PROJECT COSTS: EXTERNAL: Fr.S: 904,362 (1980-1982) =US$452,181
GOP: Soles 34'150,000 (1980-1981)= US$121,964

LOCATION: Loreto

RUR.D.4

PROJECT NAME: Rural Colonization Group in Jenaro Herrera

DONOR AGENCY: Government of Swuitzerland (COTESU)

GOP AGENCY: INIPA

DESCRIPTION:

Research programs and trials in silviculture have been developed.

Funds for scholarships is one of the most important atractives of COTESU.

OBJECTIVES:

To establish production systems compatible with the existing population and ecology.

Building of the infraestructure and basic services.

Multiple cropping and alternatives in the production activities.

DURATION: 1965 to 1983

PROJECTS COSTS: EXTERNAL: Fr.S 10'785,000 = US$8'500,000
GOP: Soles 115'555,000 = US$225,110

LOCATION: Loreto

RUR.D.5

PROJECT NAME: Agricultural Research and Extension in the Valleys of Pichis-Palcazu

DONOR AGENCY: USAID

GOP AGENCY: INIPA

DESCRIPTION:

In 1980 the agreement was signed for the development of Pichis-Palcazu in the high jungle involving Pasco and Huánuco.
Special steps have been taking to establish a setllement in the valley of Palcazu river.

OBJECTIVES:

To establish a research station for taking care and promoting the agricultural extension in crops and livestock activities.

To set a management system appropiate for the ecosystems and conservation of natural resources and increasing production and productivity.

DURATION: 1980 to 1983

PROJECT COSTS: EXTERNAL: US$235,000
GOP: Not determined

LOCATION: Huánuco, Huancayo, Pucallpa

R.D6

PROJECT NAME: Rural Development Project. Alto Mayo Agricultural Research and Extension.

DONOR AGENCY: World Bank

GOP AGENCY: CIPA X

DESCRIPTION:

The project involves the construction of a Research Station and its equipment and operation around the city of Rioja.

OBJECTIVES:

To develop and amplify INIPA's in Ag. Research and Extension in Alto Mayo.

DURATION: 1982 to 1986

PROJECT COSTS: EXTERNAL: US$ 3'094,000
GOP: Not determined

LOCATION: San Martin

R.D.7

PROJECT NAME: Rural Development of Puno

DONOR AGENCY: World Bank

GOP AGENCY: CORDE PUNO

OBJECTIVES:

To build main roads and communications; provide loan assistance and research and extension services.

DURATION: 1980 to 1984

PROJECT COSTS: EXTERNAL: US$ 15'570,135
GOP: Not determined

LOCATION: Puno

R.D8

PROJECT NAME: Upper Huallaga Special Project

DONOR AGENCY: USA

GOP AGENCY: Alto Huallaga Special Project Office

DESCRIPTIONS:

The project involves the following activities:

1) implementation of a program of adaptive research to determine the agronomic, economic and socio-agricultural feasibility of agricultural technology packages.
2) expansion and upgrading of existing extension services.
3) expansion and upgrading of the capacity of the National Agrarian University of the Jungle (UNAS) to train and interpretation of resource information.
4) production service delivery.
5) development and interpretation of resource information.
6) improved road maintenance and.
7) provision of potable water and sanitation systems to selected rural communities in the Project area.

OBJECTIVES:

To strengthen public sector agricultural support services and to develop and test agriculture production packages for the Upper Huallaga region of the Peruvian high jungle.

DURATION: 1981 to 1986

PROJECT COSTS: EXTERNAL: US$15'000,000 and 3'000,000 grant
GOP: US$ 8'500,000

LOCATION: Huánuco, San Martin

R.D.9

PROJECT NAME: Central Selva Resource Management Project

DONOR AGENCY: USAID

GOP AGENCY: Pichis-Pallazu special Project Office (PEPP)

DESCRIPTION:

The project has ten components: Project Management, Regional Development Policy Support, Forestry, Agriculture, Livestock, Feeder Road Location Planning and Road Maintenance, Protection, Health and Environmental Sanitation, Communication and Continous Land Use Inventory.

OBJECTIVES:

The purpose of the Project is to plan and execute a development profect for sustained production in the Palcazy Valley, and thereby test and institutionalize a methodology for the long range management of Peru's high jungle and natural resources.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$18'000,000 grant: 2'000,000
GOP: US$ 2'000,000

LOCATION: Cerro de Pasco

AG.D8

PROJECT NAME: Sub tropical lands Development Project

DONOR AGENCY: USAID

GOP AGENCY: Huallapa Central and Bajo Mayo Special Project Office

DESCRIPTION:

The basic project compnents are: roads, road maintenance, agricultural credit, land clearing, farm machinery equipment and services marketing facilities and services, land surveying and titling activites, extension services, resource studies, and technical assistance.

OBJECTIVES:

To develop the agricultural potential of the Huallaga Central and Bajo Mayo Valleys, which encompass an area of the high jungle located in the Department of San Martin.

DURATION: 1978 to 1983

PROJECT COSTS: EXTERNAL: US$19'000,000
GOP: US$27'500,000

LOCATION: San Martin

COMMENTS:

The project has fulfilled its main objectives and will finish in June 1983.

AG.D.7

PROJECT NAME: Agricultural Sector Loan

DONOR AGENCY: IDB

GOP AGENCY: INIPA-INAF-INFOR

DESCRIPTION:

The program involves the investment in priority areas with institutional strenghening of the agencies involved. The 4 investment areas includes:

1) Irrigation
2) Agricultural research, extension and promotion
3) Forestry and
4) Marketing

OBJECTIVES:

To complement and strenghten GOP activities in priority areas in a coordinated way to increase agricultural production and productivity, specially of the basic food crops; generate rural emplyment, and bettering of the agricultural income, overcoming the main problems that have affected the growth of the agricultural sector.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$ 80'000,000
GOP: US$240'000,000

LOCATION: National level (mainly sierra and high jungle)

AGR.D.6

PROJECT NAME: Agricultural Research and Extension Project

DONOR AGENCY: World Bank

GOP AGENCY: INIPA

DESCRIPTION:

Strempthening of the national field research program and extension program reinforcement of INIPA's planning Department, Construction of documentation and training center at La Molina, provision of a computing and statistical service for INIPA.

OBJECTIVES:

The main objective of the project would be to rehabilitate and expand Peru's agricultural research and extension activities so that these services would lead to significant increases in production and in producer wellfare.

DURATION: 1982 to 1987

PROJECT COSTS: EXTERNAL: US$40'000,000
GOP: US$40'000,000

LOCATION: Piura, Tumbes, Lambayeque, Cajamarca, Trujillo, Ancash