

EL NIÑO EMERGENCY PROGRAM

(PE-0188)

EXECUTIVE SUMMARY

BORROWER: Republic of Peru

EXECUTING AGENCY: Ministry of Economic Affairs and Finance, through its Investment Office [Oficina de Inversiones] (OI)

AMOUNT AND SOURCE: IDB (OC): US\$150 million
Local counterpart funding: US\$ 65 million
Total: US\$215 million

FINANCIAL CONDITIONS, TERMS FOR COMMITMENT AND WORKS ELIGIBILITY: Amortization period: 25 years
Grace period: 3 years
Disbursement period: 3 years
Commitment period: 2 years
Term for eligible works: 1 year
Interest rate: variable
Inspection and supervision: 1%
Credit fee: 0.75%
Currency: United States dollar from the Single Currency Facility

OBJECTIVES: The objective of the program is to carry out activities to prevent or mitigate the impact of the El Niño phenomenon and to rebuild the physical infrastructure damaged and restore services interrupted by it.

DESCRIPTION: **Component 1: Prevention of damage by the El Niño phenomenon**

Preventive activities have been carried out by the government in all sectors since June 19, 1997, on which date a state of emergency was officially declared. The activities mainly concern: (i) in the northern region: drainage works in agricultural and urban areas, clearing, channeling, and protection of streams, cleaning of ditches and sewers, highways, reinforcement of bridges, protection of schools, historic monuments, and archeological sites, relocation of small communities to higher ground, etc.; and (ii) in the southern region: activation of systems for irrigation, plowing, and planting of crops and fodder, food storage, etc.

The Bank will retroactively finance up to US\$30 million incurred for activities initiated after the above-mentioned date, provided the contracts were awarded according to the procedures for procurement of goods and services and for construction contracts established under national legislation, following procedures acceptable to the Bank and compatible with the Bank's basic procurement principles of economy, efficiency, due process, nationality of the firms, and origin of goods.

In addition, the Bank will recognize up to US\$13 million in expenditures as part of the local counterpart contribution.

The cost of the activities carried out by the government from June 19, 1997 to September 18, 1997 was an estimated US\$68 million, with an additional US\$92 million expected to be spent by December, for a total of US\$160 million.

Most of the works were carried out on force account, mainly because they were small-scale works located in various, scattered localities.

Component 2: Mitigation of El Niño impact and reconstruction phase

This component includes activities for temporary repair and/or permanent reconstruction of the physical infrastructure and basic services damaged by the El Niño phenomenon in the following sectors: (i) transportation; (ii) sanitation; (iii) health care and public health infrastructure; (iv) humanitarian aid for disaster victims; and (v) any other additional activities that the government and the Bank may agree upon in the future.

The above-listed sectors were selected jointly with the government, taking into account the fact that the World Bank is financing the mitigation and reconstruction activities in the remaining sectors (in a program parallel to the proposed Bank program).

Other program costs: The program also includes the following administrative costs: (i) operating costs of the PCU for three years; (ii) financial audits; and (iii) finance charges.

**THE BANK'S
COUNTRY AND
SECTOR STRATEGY:**

The Bank's country strategy assigns priority to (i) economic modernization; (ii) establishment of the conditions for the private sector to increase the job creation rate and government support for expanding the coverage of social services, enhancing the quality of these services and improving poverty reduction efforts; and (iii) modernization of public-sector institutions.

In addition, in the case of natural disasters that may have exceptional consequences, the Bank helps member countries deal with the unforeseen effects of such disasters and their socioeconomic and environmental impact.

REVIEW BY CESI:

The program was reviewed on October 20, 1997 at a special meeting of the TRG held jointly with the CRG.

BENEFITS:

Minimized economic impact. The program will help reduce economic losses resulting from the impact of the El Niño phenomenon by keeping roads open and ports and airports operational and by building other infrastructure such as irrigation and drainage works.

Social impact. The program will also help minimize the loss of human lives and prevent famine and epidemics during and after the emergency.

Positive long-term impact on socioeconomic development. The preventive measures being taken by the government are such that their impact goes far beyond the emergency and will contribute to permanent socioeconomic development in those areas in which the works are being carried out.

Environmental impact. The activities called for under the program are designed to mitigate the adverse impact of the event. The program is therefore expected to have a positive impact on the environment.

RISKS:

The main risk is that the program may not be properly sized if the intensity, duration and impact of the El Niño phenomenon differ substantially from what has been forecast.

Another risk is that the different organizations and agencies conducting the various activities may not maintain proper coordination during the emergency, particularly during the reconstruction phase. The risk is minimal, however, in view of the establishment of the PCU, the preventive measures

already taken and the good coordination demonstrated among the agencies participating in the prevention phase.

**SPECIAL
CONTRACTUAL
CONDITIONS:**

Special conditions precedent to the first disbursement:

- a. The environmental technical evaluator, social evaluator and procurement expert will be hired to make up the Program Coordinating Unit in the Investment Office (OI) of the MEF (paragraph 3.4).
- b. The Operating Regulations of the program will enter into force (paragraph 2.28).
- c. A special account for the program will be opened (paragraph 3.19).

Additional conditions:

- a. A firm to provide technical environmental advisory services will be hired within four months after the first disbursement under the program (paragraph 3.5).
- b. In addition to the semiannual reports, a final report will be submitted within six months after disbursement in full (paragraph 3.6).
- c. The first financial audit will be carried out six months after the first disbursement, the second one 18 months after the first disbursement, and the last one after disbursement in full (paragraph 3.37).

**POVERTY TARGETING
AND SOCIAL SECTOR
CLASSIFICATION:**

The program meets the criteria for poverty targeting since over one half of its beneficiaries will be from low-income groups.

It should be noted that, given the program's expected impact on the poor, the OI/PCU will include on its staff a social assessment specialist whose primary function will be to monitor the impact of the El Niño phenomenon, the needs of low-income groups, and how those needs are being met, throughout every phase of the program.

**EXCEPTIONS TO
BANK POLICY:**

The borrower may use up to 20% of the loan proceeds as retroactive financing to cover expenses incurred after the date on which the state of emergency was declared (June 19, 1997). The Bank will recognize up to US\$13 million in expenses incurred after the

above-mentioned date as part of the local counterpart contribution.

The borrower may use up to 20% of the financing to establish a revolving fund.

**PROCUREMENT OF
GOODS AND AWARDED
OF CONTRACTS FOR
CONSTRUCTION AND
CONSULTING
SERVICES**

A. Regular procurement

In the procurement of goods and related services, the awarding of contracts for construction of civil works and for consulting services to be financed using program resources, the Bank's procedures for procurement and the selection and hiring of consultants and the rules set forth in this document will apply. Under the procedures, international competitive bidding is required when the cost of the goods or services to be procured is over US\$350,000 or, for construction contracts, over US\$5 million. International competitive bidding is required for consulting contracts valued at more than US\$200,000. The procurement of goods and related services and the awarding of contracts for construction works or consulting services below those thresholds will be governed by national legislation.

Procurement in amounts below those limits will be governed by national legislation. Competitive bidding will be required for the procurement of goods in amounts over US\$270,000; shopping will be required for goods in amounts between US\$85,000 and US\$270,000; and direct purchase for goods in amounts below US\$85,000. For construction contracts, competitive bidding will be required for amounts above US\$690,000; open calls for proposals for amounts between US\$230,000 and US\$690,000; and direct contracting for amounts below US\$230,000. Invitations to submit statements of qualifications will be required for consulting services with a total value of more than US\$75,500 and direct contracting for amounts equal to or less than that threshold.

B. Special procedures

Once the proposed loan is approved, while the state of emergency remains in effect, the Bank has agreed to simplify its normal procurement procedures in order to allow the executing agency, if it so desires, to follow the following special procedures:

- a. For procurement of goods and services above the threshold for international competitive bidding:

- (i) Only one general procurement notice will need to be published in *Development Business*, indicating that the specific procurement notices will be published in the national press as specified instead of in *Development Business*. The notices published in the national press will specify that there will be no restrictions on international participation in the bidding.
 - (ii) For the awarding of contracts for construction and for goods in amounts above the thresholds, no prequalification will be required. Contracts for goods will be awarded to the lowest bidders. Construction contracts will be awarded using the postqualification method, under which the lowest bid is selected and then it is verified whether the bidder qualifies or not.
 - (iii) For the awarding of contracts for consulting services, the specific procurement notice will call for expressions of interest and, based on selection criteria, the best firm to negotiate the contract will be selected. This system will replace the procedure of prequalifying firms, drawing up short lists and issuing invitations to submit bid.
 - (iv) Other procurement methods may be used, such as direct contracting or force account, subject to proper justification and prior consultation with the Bank.
 - (v) In addition, for works and goods, the executing agency may follow a short procedure for restricted calls for bids under which calls for bids may be issued directly to suitable firms that have previously participated in and qualified for similar public-sector international competitive bidding in the past three years.
- b. For procurement in amounts below the thresholds for international competitive bidding:
- (i) In cases in which a state of emergency has been declared, procurement of goods and services in amounts below the above-

mentioned thresholds will be carried out by direct contracting according to national legislation, which requires that calls for bids be issued to at least three bidders. There will be no restrictions on participation by firms or goods from the Bank's member countries.

- (ii) With regard to the procurement of goods and the awarding of construction contracts requiring international competitive bidding, the Country Office will conduct an ex ante review of each one. In all other cases, the Country Office will conduct an ex post review by sampling of the supporting documentation for each case.

c. Force account

The Bank will recognize expenses incurred by the government for goods procured and services rendered on force account during the emergency prevention and mitigation phase. In addition, the Bank may recognize up to US\$5 million in expenses incurred during the reconstruction phase.

d. Review procedures

Services in amounts of US\$200,000 or more rendered by consulting firms will be subject to prior review by the Bank, which will examine the contracts, terms of reference, and selection procedures followed. Services in amounts of US\$50,000 or more rendered by individual consultants will be subject to prior review by the Bank. For consulting services below these thresholds, only the final reports will be subject to review.

If, as a result of these reviews, the Bank should determine that the procedures agreed upon have not been followed, the goods and services procured will not be accepted for financing with the proceeds of the proposed loan. The Country Office may increase or decrease the sample depending on the findings of its reviews and as it gains experience with the various subexecuting agencies.

I. FRAME OF REFERENCE

A. Nature of the El Niño phenomenon

- 1.1 The El Niño phenomenon consists of a series of oceanic and atmospheric anomalies that manifest themselves along the west coast of South America as a warming of the surface waters of the Pacific Ocean. Under normal conditions, the southeast trade winds cause an upwelling of cold waters along the coast. The warming occurs as a result of the movement of huge masses of warm water from the central Pacific, combined with the displacement of masses of warm air generated by differences in atmospheric pressure between the eastern and western Pacific, a phenomenon called the "Southern Oscillation". El Niño causes worldwide climatic changes and has a particularly strong impact on Southeast Asia and the west coast of South America.
- 1.2 In Peru, El Niño has been a recurring phenomenon for centuries. Since 1950, it has occurred 10 times, with varying intensities. It usually causes very heavy rainfall in the northern region due to the high concentration of cloud formations resulting from the warming and consequent evaporation of the waters, leading to the risk of serious flooding. By contrast, in the Andean region in the south part of the country, the trade winds shift away, a condition accompanied by a marked absence of cloud, generating drought conditions in the high mountain areas.
- 1.3 The first indications that an El Niño event was in the process of developing occurred in April 1997, with a warming of the sea surface temperature. In late September, the National Meteorology and Hydrology Service [Servicio Nacional de Meteorología y Hidrología] (SENAMHI) reported that **the El Niño under way should be considered a high-intensity event**. The so-called **principal phase** is expected to begin between December 1997 and January 1998, at which time the phenomenon and its effects will reach their maximum intensity as the warming caused by El Niño combines with the higher seasonal summer temperature.

B. Impact of El Niño

1. Sector impact

- 1.4 The sectors most directly and adversely affected are fisheries, agriculture, the manufacturing subsector of the raw materials processing industry, and the transportation sector.
- 1.5 In the case of fisheries, the increase in the sea surface temperature causes anchovy, sardine, and hake to flee to deeper waters where they are much more difficult to catch with the fishing devices available. Alternatively, the fish migrate to southern Peru and northern Chile. Giant squid tend to avoid coastal

Peruvian waters in search of temperate climates. The drop in the value added in the sector may reach an estimated 11% in 1997 as a result of the foreseeable decline in anchovy hauls in November and December. In 1998, fisheries production may drop by up to 20%.

- 1.6 El Niño seriously affects agriculture in a number of ways. First of all, the high temperatures associated with the phenomenon alter the normal cycle of the principle crops. Secondly, the flooding from heavy rainfall and rivers overflowing in the northern region leaves extensive areas of cultivated land unusable, damages the agricultural infrastructure, and, by damaging the transportation infrastructure, prevents the distribution of agricultural products to centers of consumption. In addition, the droughts in the southern Andean region destroy crops and vast areas of natural pastureland used for stock-farming.
- 1.7 The excess rainfall mainly affects the northern coastal region of the country (the departments of Tumbes, Piura, Lambayeque, and La Libertad). Cotton, sugarcane, rice, mango, banana, and lemons crops will be damaged. In other areas affected by the torrential rains, the most threatening factor will be the increase in river flow, which will cause some damage, probably not very severe, to sugarcane, asparagus, bean, pea, and other vegetable crops. Extreme cold spells have already occurred in the central Sierra region, damaging potato and vegetable crops.
- 1.8 In the southern Andes (departments of Ayacucho, Apurímac, Cuzco, and Puno), the drought may reach critical proportions. The lack of rain could have a devastating effect on potato, white corn, other minor grains, and certain fruit crops. With the resulting drop in river flows, garlic, onion, apple, peach, pear, and olive crops are expected to suffer, along with the planting of fodder pasture, in the departments of Arequipa, Moquegua, and Tacna.
- 1.9 In the regions where drought is forecast, the impact on stock-farming could be devastating. Apart from decapitalization of the producers due to the mass deaths of cattle and sheep that are likely to occur, the amount of fodder available for animal-farming is expected to drop substantially, as will the output of stock-farming activities.
- 1.10 In view of the foregoing, the total direct impact of the El Niño phenomenon on the agricultural sector will represent a total loss of value added of some 3% to 3.5% in 1998.
- 1.11 The transportation industry can also be expected to suffer the direct impact of damage to the road system in the regions affected by flooding and high water levels, which would disrupt highway traffic flows.
- 1.12 The manufacturing sector that processes raw materials will be significantly affected. Fishmeal production will be the most

seriously damaged subsector, because of problems in the supply of anchovy, its primary input. Another subsector affected will be the preparation of frozen foods. The companies most adversely affected are expected to be those companies that operate processing ships for the production of frozen hake and squid. The oil refineries may also be hit if the rains hinder the Talara plant activities.

- 1.13 In general, the remaining productive sectors will experience an indirect impact associated with the foreseeable reduction in the demand for goods and services as a result of the drop in revenues of the sectors directly affected. They may also encounter difficulties in the distribution of their products due to the damage to the transportation infrastructure. Initially, the manufacturing sector as a whole will see its growth decline by 2% to 2.5% in 1998. Textiles and garment-making have been seriously hurt by the high temperatures that prevailed during the winter months (June to September). In mining, there is a risk of disruptions in the production and transportation of oil and metal ore, especially if operation of the northern Peruvian oil pipeline is interrupted and/or if activities on the continental platform are suspended. In addition, certain gold mines may experience problems with the supply of electric power. Losses in power production may be associated with lower water flow affecting generation by hydroelectric power plants. The loss of value added in the trade sector will be the net effect of the two opposing trends: one the one hand, the sector will tend to contract as a result of the slower growth in the activity of the remaining sectors and the damage to the road system; on the other hand, the higher level of imports that will be required to fill the gap in domestic supply will be a factor stimulating trade.

2. Impact on the physical capital stock

- 1.14 El Niño may have a considerable impact on the productive infrastructure. By comparison, the last occurrence of the phenomenon resulted in infrastructure losses estimated at US\$456 million in 1983.
- 1.15 The flooding, overflowing rivers, mudflows, and landslides caused by the torrential rains could seriously affect the transportation infrastructure of the coastal area in the northern part of the country. In the 1982-1983 event, for example, 620 km of highways became impassable as a result of the rains, including 350 km of the Pan American Highway, the country's main overland transportation route. Moreover, 47 bridges suffered considerable damage. The air transportation infrastructure may also be severely damaged. In 1982-1983, four airports were damaged, two of them severely. The telecommunications infrastructure may be affected to the extent that telephone and telegraph lines, towers, antenna systems and urban networks are damaged by the torrential rains. In the last event, and/or telegraph lines in the five departments in the coastal region and the urban network in five cities were

considerably damaged. The electric power transmission and distribution infrastructure may also be seriously affected. In 1982-1983, approximately 600 km of electric power distribution grids and primary and secondary distribution grids were thus affected. The interconnected grids in the northern and central regions of the country also suffered some damage.

- 1.16 The productive infrastructure in the agricultural sector is also likely to be affected. In the four departments of the coastal region of northern Peru and in the department of Ancash (central coastal region), the irrigation infrastructure, which is crucial for normal production in the country's arid coastal region, may suffer substantial damage. The physical loss of cattle, dairy cows, and sheep could be massive in the drought-stricken areas. In 1982-1983, 2.6 million head of cattle were lost.

3. Impact on value added, the fiscal situation, inflation, and the balance of payments

- 1.17 With losses in value added in production directly attributable to El Niño that may reach some 1.5% to 2% of GDP, losses in revenue from the factors associated with the production processes are expected to have a multiplier effect on aggregate demand in terms of a contraction. The net result of the direct impact, compounded by the indirect impact through aggregate demand could be a total loss in value added of approximately 2.5% to 3% of GDP (between US\$1.625 billion and US\$1.95 billion). Under the circumstances, the Peruvian economy, which prior to the initial detection of the El Niño phenomenon, was forecast to grow at a rate of 6% in 1998, may ultimately achieve a rate of only 3% to 3.5%.
- 1.18 As a result of the El Niño phenomenon, public finances and fiscal policy will face new challenges in maintaining fiscal discipline. Due to the losses in production and revenue that the productive sectors directly hit will have to endure, the tax revenues of the central government can be expected to be affected. Achieving the increase in tax revenues as a proportion of GDP targeted will therefore be difficult. It should be borne in mind that at the same time, the government will have other nondeferrable expenditures for prevention of the disaster, mitigation of its effects, and infrastructure reconstruction.
- 1.19 The impact of El Niño on the balance of payments and on inflation will be temporary. In the balance of trade, the decline in fisheries and agricultural exports forecast may lead to a temporary increase in the trade deficit. The inflation rate may increase temporarily if shortages in agrifood supplies develop.

4. Social impact

- 1.20 When an El Niño event is high intensity, its social impact is dramatic in areas in which there is a high incidence of poverty

(see table). Its primary impact is in loss of life. In 1982-1983, for example, 233 deaths were reported, a little over 100 of which were of children. The social impact is also reflected in a loss of employment, drop in family income, profoundly adverse effect on the delivery of social services, deterioration in the social physical infrastructure, a drop in the already precarious standard of living of the poor and extremely poor, and, lastly, a traumatic disruption in the day-to-day activities of all segments of society in the regions directly affected.

- 1.21 For the same reasons, the water supply and sewerage infrastructure suffers severe damage. Public solid waste collection systems tend to come to a standstill and garbage and other solid waste accumulates and becomes a focus of pollution. The collapse of the water supply, sewerage, and drainage systems creates conditions conducive to a general deterioration in public health, including outbreaks of epidemics, increases in morbidity from acute diarrheal diseases and acute respiratory infections, outbreaks of dengue and malaria, deterioration of food security, and possible outbreaks of rabies during the emergency and bubonic plague thereafter.
- 1.22 Perhaps the most dramatic impact on the well-being of the population affected concerns the destruction of dwellings in the northern and central coastal regions. These regions vary from arid to desert-like, where heavy rains are virtually unknown. Consequently, the roofs and walls of many dwellings, particularly those of low-income groups, are built with materials that are not capable of resisting the onslaught of torrential rains and/or flooding (such as roofs of cane, straw, or rushes and walls made of a mix of cane, mud, and rushes). In 1982-1983, 8,500 dwellings were destroyed.
- 1.23 In the regions affected by drought, the potential losses of crops and pastureland, with the consequent drop in the food supply, will exacerbate chronic malnutrition and cause a resurgence in acute malnutrition, especially among children under five. The incidence of acute respiratory infections and acute diarrheal and childhood diseases can also be expected to rise.
- 1.24 Health care and education establishments in the northern coastal region are likely to experience physical damage that will wholly or partially prevent their use. In 1982-1983, for example, 101 health care establishments and 875 educational establishments were destroyed or extensively damaged. Flooding and overflowing rivers will also paralyze school activities.

POVERTY IN EL NIÑO AFFECTED DEPARTMENTS					
Department	No. of poor (inhabitants) 1/	Poor as % of total department population	Department population 2/	% of rural population 3/	Poverty rate 4/
Tumbes	50,000	29	174,000	12.4	1.0
Piura	705,000	48	1,468,000	29.6	2.29
Cajamarca	887,000	66	1,344,000	75.3	2.9
Lambayeque	494,000	49	1,008,000	22.9	1.87
La Libertad	738,000	54	1,366,000	31.5	2.08
Ancash	574,000	56	1,025,000	42.6	2.31
Arequipa	320,000	32	999,000	14.3	1.55
Moquegua	51,000	37	138,000	17.2	1.49
Tacna	81,000	33	246,000	10.3	1.39
Puno	778,000	68	1,144,000	60.8	2.83
Ayacucho	337,000	65	518,000	51.9	3.03
Apurímac	299,000	73	410,000	64.9	3.16
Huancavelica	298,000	72	414,000	73.9	3.39
Cuzco	662,000	60	1,104,000	54.1	2.93
TOTAL	6,274,000	55	11,358,000		

1/ Includes the poor and extremely poor population as defined according to the Ministry of the Presidency methodology.

2/ In 1996. Source: National Statistics and Data Processing Agency

3/ Source: "Mapa de la Inversión Social: Fondo Nacional de Compensación y Desarrollo Social (FONCODES) Frente a la Pobreza: 1991-94", Table 6, page 32.

4/ According to the FONCODES methodology based on 11 socioeconomic indicators. Source: Ibid, page 28.

The poverty rate is as follows: Very poor from 3.01 to 4.22; Poor, from 2.01 to 3.00; Fair, from 1.51 to 2.00; and Acceptable, from 1.00 to 1.50.

C. The government strategy to address the impact of the El Niño phenomenon

- 1.25 The government declared a state of emergency under Supreme Decrees 031-97-PCM and 040-97-PCM in the following areas: (i) in the northern region of the country, in the departments of Tumbes, Piura, Cajamarca, Lambayeque, La Libertad, and Ancash; and (ii) in the southern region, in the departments of Arequipa, Moquegua, Tacna, Puno, Ayacucho, Apurímac, Huancavelica, and Cuzco.
- 1.26 Peru has an emergency response system which has already been tested during the prevention stage and found to operate effectively.
- 1.27 In addition, there is a National Civil Defense System (SINDECI) whose purpose is disaster prevention and in which all areas of the government, private organizations, and the public in general participate.

- 1.28 The system hierarchy consists of the National Civil Defense Agency (INDECI), Regional Civil Defense Offices, and regional, subregional, provincial, and district civil defense committees. The objectives of the system are to: (i) protect the lives and health of the population in disaster-prone areas; (ii) protect production and the socioeconomic infrastructure at risk; and (iii) avoid disruption or interruption of essential public services.
- 1.29 In light of the preventive measures taken by INDECI and the estimated magnitude of the efforts that will be needed, and considering the need for multisector decision-making, the Council of Ministers decided to strengthen INDECI and include the ministries in the programming, physical execution, and application of budgetary resources to take immediate action for prevention and planning in order to act efficiently and on a timely basis as soon as an emergency occurs, and in subsequent reconstruction efforts.
- 1.30 The Council of Ministers, chaired by the President of the Republic, has assumed responsibility for coordinating the many measures the ministries and the agencies attached to them will take during the three stages into which the impact of the El Niño phenomenon has been divided: prevention, emergency relief, and reconstruction. In this context, the state of emergency decrees were published.
- 1.31 The main preventive measures being taken by the government are described in chapter II as part of the program proposed in this document. The budgetary requirements for the prevention stage are an estimated US\$160 million.
- 1.32 **Technical monitoring of El Niño.** SENAMHI has ongoing institutional links with such international organizations as the World Meteorological Organization (WMO) and government agencies such as the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA), both of the United States.

D. The Bank's experience during the 1982-1983 emergency

- 1.33 The Bank participated in the financing of a program for reconstruction works after the 1982-1983 El Niño event, with a loan for US\$65 million. The program, the total cost of which was an estimated US\$162.45 million, consisted of the following subprograms: (i) a transportation subprogram (90% of the program) for repair of the northern Pan American Highway in the department of Tumbes, the central highway in the department of Lima, the central railway, and other transportation routes; and (ii) an electric power subprogram (10% of the program) to restore and maintain basic electric power service in the department of Tumbes and to develop an adequate power supply for the population in the department of Piura.

- 1.34 Only 53% of the above loan was executed due to a lack of timely designs for the reconstruction projects, delays in the provision of the local counterpart funding, and primarily the absence of an executing unit.

E. World Bank participation

- 1.35 In addition to the IDB loan, the government has requested US\$150 million in financing from the World Bank to address the impact of the current El Niño phenomenon. The World Bank loan would be used for retroactive financing of a portion of the activities conducted by the government after June 19, 1997, the date on which the state of emergency was declared, thereby supplementing the proposed retroactive financing by the IDB for the same activities. The World Bank loan would also be used to finance other activities during and after the emergency in the agricultural, education, and housing sectors, thus supplementing the areas that would be financed by the IDB (transportation, health, sanitation, and humanitarian aid), as proposed herein. The sector breakdown between the World Bank and the IDB was agreed upon with the government based on the experience of each organization in the respective sectors.

II. THE PROGRAM

A. Objectives

- 2.1 The objective of the program is to carry out activities to prevent or mitigate the impact of the El Niño phenomenon and to rebuild the physical infrastructure damaged and restore services interrupted by it.

B. Program components

1. Component 1: Prevention of damage by El Niño (US\$30 million)
- 2.2 The objective of this component is to prevent or minimize the damage and physical losses that might be caused by the El Niño phenomenon.
- 2.3 Preventive activities have been carried out by the government, using regular central government budgetary resources, since June 19, 1997, on which date the state of emergency was officially declared. The Bank will provide up to US\$30 million in retroactive financing and will recognize up to US\$13 million in expenses incurred as part of the local counterpart contribution for activities carried out after that date.
- 2.4 The estimated cost of the activities carried out by the government from June 19, 1997 to September 18, 1997 was US\$68 million. An estimated US\$92 million will be spent by December 1997, for a total of US\$160 million.
- 2.5 Most of these works were carried out on force account, mainly because they were small-scale works and/or were scattered in many different localities.
- 2.6 The main preventive activities being conducted by the government are described below.
- 2.7 Drainage works in agricultural areas (Tumbes, Piura, Lambayeque, La Libertad, and Ancash). River beds, drains, and canals are being cleaned, and riverbank protection works, such as rockfill, gabions, or earth levees, are being built in vulnerable locations. In addition, maintenance work is being done on water regulation devices that control inflow, and intake works and gates are being repaired so that they can operate at full capacity. Altogether, some 2,060 km of river beds and drains and 298 km of channels are to be cleaned and 30 intake works and gates to be maintained, at a cost of US\$35 million. The works are to be executed by regional governments, the Ministry of Agriculture, INDECI, the National Development Authority [Instituto Nacional de Desarrollo] (INADE), municipalities, and user groups.

- 2.8 Drainage works in urban areas (Tumbes, Talara, Paita, Sullana, Piura, Chiclayo, Trujillo, and Chimbote). Because these cities have little or no storm drainage works, existing drains are being cleaned and channelled and new ones built where needed for development of urban streets. Altogether, 91 km of drains are to be cleaned, 65 km channelled, and 14 km of new drains built, with an investment of close to US\$12 million. The works are to be executed by regional governments, the Ministry of Agriculture, INDECI, INADE, Petróleos del Perú (PETROPERU), and user groups.
- 2.9 Cleanup, channeling, and protection of streams. Works totaling 135 km in length are being carried out in the emergency area, with an investment of just over US\$4 million. The works are being carried out by the Grau regional government, INADE, INDECI, and the Ministry of Agriculture.
- 2.10 Land transportation. Ditches and sewers are being cleaned and bridges in the highway system of the northern region of the country protected and reinforced. Bailey bridges will be transported to sites close to the emergency area. In other cases, special new bridges are being built to improve river and drainage crossings. Special works are also under construction in areas in which a substantial increase in river flow is expected, such as the old Pan American Highway bridge over La Leche River, and new storm sewers are being built in critical areas of the Pan American Highway. These works are being carried out by the Ministry of Transportation (MTC), the regional governments of Grau and Northeastern Marañón, and INDECI, along 2,228 km of asphalt highways and 1,080 km of paved highways, with an investment of US\$12 million.
- 2.11 Airports (Tumbes, Talara, Piura, Chiclayo, and Trujillo). Special attention is being paid to drainage on runways, to which end the storm drains protecting them are being cleaned. In addition, roof repairs are being made and storage areas overhauled. Altogether, 40 km of drains are being cleaned, 99 hectares of vegetation and brush, 1,320 square meters of roofs repaired and waterproofed, and 1,180 square meters of storage space overhauled, with an investment of US\$250,000 under the responsibility of the MTC and regional governments.
- 2.12 Ports. The National Port Authority [Empresa Nacional de Puertos] (ENAPU) is repairing ditches along the access highway and main gate, carrying out drainage works in the container yard and main entrance, and repairing storage facility and electric substation roofs, among other works. PETROPERU is carrying out similar works for the port of Talara and Bayóvar. In addition, ENAPU has arranged for inspection of the anchorages at the docks at each port terminal in order to reinforce any defective ones, and is coordinating safe anchorages, protected from wind and surf, with the harbor master of each port.

- 2.13 Communications. All the agencies involved are procuring two-way radios to work on the same frequency and achieve efficient communication, in addition to the system INDECI already has in place. Moreover, the MTC will ensure 80% cellular telephone coverage in the area between Chimbote and Tumbes.
- 2.14 Sanitation and housing. The sanitation utilities, with support from the regional governments and Servicio de Agua Potable y Alcantarillado de Lima [Lima Water Supply and Sewerage Service] (SEDAPAL), have arranged for maintenance of domestic sewerage systems to permit conveyance of wastewater, completion of works that were under way, and the procurement of pumping equipment. In addition, pumping chambers are being repaired for clean up of sewers in Piura, Talara, Sullana, and Tumbes. To ensure water supply, the treatment plants and water supply systems are being reviewed and protected, along with vulnerable points in the system, so that they can operate in extreme conditions. Chlorine tablets are being procured to ensure water quality. The works under way include the clean up of 88 km of sewers and reinforcement of water supply and sewerage systems, in the amount of US\$7 million.
- 2.15 Relocation of families in vulnerable areas. Studies have been conducted for the cities of Piura, Castilla, Sullana, Paíta, and Tumbes, with recommendations on areas for relocation; so far, 203 hectares of land identified will be required to shelter 7,463 families, which number may be extended to 10,000. INDECI, jointly with the regional governments, is procuring lightweight construction materials at a cost of US\$264 per 16 m² module, which can serve as temporary shelter during the emergency, in 120 m² lots. Possible systems for self-construction of permanent housing will be evaluated at a later date. INDECI, INADE, and regional and local governments are preparing the land for the relocation, by leveling it and installing basic services, with an estimated investment of US\$3 million.
- 2.16 Education and culture. To protect schools, sidewalks and storm drains are being built around them, along with curbs and protective works, and damaged roofs are being repaired. Educators are being trained in emergency procedures. The regional governments and National Education and Health Infrastructure Authority [Instituto Nacional de Infraestructura Educativa y de Salud] (INFES) are participating in this effort, in coordination with the Ministry of Education, with an investment of US\$2.8 million, covering 341 schools in the emergency area. In addition, the National Institute of Culture has assigned priority to the protection of archeological sites and historic monuments, with works being carried out by the regional governments with support from private enterprises in the departments of Piura, Lambayeque, and La Libertad, in the amount of US\$640,000.
- 2.17 Agriculture sector. In the departments of Tumbes and Piura, seeds of various species are being procured for forestation in Zarumilla,

both banks of the Tumbes River, and the upper, middle, and lower Piura, San Lorenzo, and Chira valleys. In the Arequipa and Moquegua-Tacna-Puno regions, a fodder planting program is under way for harvesting before the drought occurs, using tilled areas that currently have water. This will provide a stock of fodder to feed livestock during the emergency. For Arequipa, alfalfa seed is being procured, and corn and fodder pasture for Tambo, Caravelí, Majes, Camaná, Sihuas, and Vitor. Similar activities are planned for the northeastern Marañón region.

- 2.18 In the southern drought region, 10,000 manual pumps have been procured to extract water from artesian wells that will provide for animal watering as well as human consumption needs. Agricultural tractors are being procured to strengthen farm work in areas in which the water stored in reservoirs can be used where boreholes already exist. In the southern region, in Nuñoa, Lagunillas, Iniquilla, and Umay, the irrigation system is being strengthened, with 50 km of canal mains being built. In the Pilcuyo-Chipana irrigation system, the pumping and intake chamber is being upgraded so that it can irrigate an approximate area of 3,000 hectares. Access roads to the forest fringe are also being maintained in order to ensure the transportation of food and fodder to that area.
- 2.19 In Puno, three lagoons are being used in areas where there have been rains to irrigate 4,000 hectares, and a series of works are being carried out on dams, canals, and water channeling where rains are currently falling and crops cannot be planted, so that the lagoons can serve as reservoirs for the irrigation of some 15,000 hectares. In addition, small-scale irrigation systems are being rehabilitated (Huaru-Huaru), and man-made ponds are being promoted for trout-farming to be used as supplementary food. Alpaca herds in the area are being transferred to other areas where fodder is available.
- 2.20 Energy and mining sector. The purpose of this component of the program is to avoid interruptions in electric power and fuel service in the emergency area, assigning priority to public facilities, hospitals, schools, water supply, and domestic wastewater and storm drainage pumping. Moreover, PETROPERU has taken measures to increase fuel stock levels in terminals and sales facilities. The investment totals an estimated US\$4.5 million.
- 2.21 Fisheries sector. Works are under way to protect the fisheries infrastructure and offshore missions are being conducted for ongoing research and monitoring of hydrobiological resources to anticipate management needs. These activities are the responsibility of the Ministry of Fisheries, the National Fisheries Development Fund [Fondo Nacional de Desarrollo Pesquero] (FONDEPES), the Peruvian Institute of the Sea [Instituto del Mar del Perú] (IMARPE), and the regional governments of Grau and northeastern Marañón, and total US\$2.7 million. The private

fisheries sector is also independently carrying out protective works on its facilities.

- 2.22 Health sector. The Ministry of Health, through the National Health Administration [Instituto Nacional de Salud] (INS), is taking the following measures: (i) procurement of medicine; (ii) strengthening of response capacity in the diagnosis of diarrheal diseases, the plague, malaria, dengue, yellow fever, and food microbiology; (iii) establishment of rapid response teams to support diagnosis of diseases, supply inputs, and control medicine; and (iv) training in the handling and preserving of food and water. The investment involved amounts to just over US\$5 million.

- 2.23 National nutritional supplement program [Programa Nacional de Asistencia Alimentaria] (PRONAA). This program calls for: (i) the purchase of 25,000 tons of food reserves for the departments in which a state of emergency has been declared, for a total of close to US\$20 million; (ii) support in the form of food for work in the execution of community works; (iii) purchase of products produced by farmers especially in the area affected; and (v) improved food storage capacity in the emergency areas, in both the northern and southern parts of the country.

2. Component 2: Mitigation of the impact of the emergency and reconstruction phase (US\$117 million)

- 2.24 The objective of this component is to minimize loss of life and property damage during the event and to repair damage to the transportation and sanitation and health services infrastructure as soon as possible.
- 2.25 Accordingly, the component includes activities for temporary repair and/or permanent reconstruction of the physical infrastructure and basic services damaged by El Niño in the following sectors: (i) transportation; (ii) sanitation; (iii) health care and public health infrastructure services; (iv) humanitarian aid for disaster victims; and (v) any other additional activities that the borrower and the Bank may agree upon in the future.
- 2.26 These sectors were agreed upon jointly with the government, bearing in mind that other international organizations, the World Bank in particular, are participating in the financing of mitigation and reconstruction activities in the remaining sectors.
- 2.27 The activities that will be financed in each sector are detailed below:
- (a) Transportation: These activities include reconstruction of those portions of primary and secondary highways and rural roads and the respective bridges damaged by El Niño, in order to restore both passenger and freight transportation on those segments, along with repair of damage by the event to ports and

airports in the country. Engineering and design studies may also be financed.

- (b) Sanitation: Sanitation sector activities consist of rehabilitation of the water supply, sanitary sewerage, and wastewater treatment infrastructure, in order to restore those public services to the population affected. They also include the financing of engineering and design studies.
- (c) Health: Health sector activities consist of rehabilitation of the health care infrastructure (hospitals, medical centers, and health posts), including financing of the necessary engineering and design studies, and the provision of equipment, materials, and medicines. Mass vaccination campaigns will also be financed to prevent possible epidemics of malaria, cholera, typhoid fever, hepatitis, dengue, and other diseases.
- (d) Humanitarian aid for disaster victims: These activities consist of the supply of food, clothing, medicine, and other vital necessities to help the population affected subsist during the phenomenon. They include relief for communities that have lost all or a substantial part of their main source of income as a result of the El Niño phenomenon (such as the fishing communities in the norther region), and the necessary preinvestment studies.
- (e) Other sectors: These include any other activities that are part of the emergency but have no other source of funding. They may involve institutional strengthening of the emergency system, if found to be necessary during program execution, and may also include preinvestment studies on all sectors.

2.28 The financing for the above-mentioned activities will be governed by the Operating Regulations, implementation of which will be a condition precedent to the first disbursement.

C. Total cost and financing plan

2.29 The total cost of the program is US\$215 million, of which the Bank will finance US\$150 million from the ordinary capital under the Single Currency Facility, or 70% of the total (OP-704). This level of financing is justified in view of the fact that most of the program beneficiaries will be low-income groups.

2.30 The terms of the financing will be as follows: variable interest rate, a 0.75% commitment fee on the undisbursed balances of the loan, a 1% inspection and supervision fee, and an amortization period of 25 years, a period that is justified in view of the emergency situation, according to the Bank's natural disasters policy (OP-704) and amortization period policy (OP-902).

- 2.31 The proceeds of the loan will be used to finance: (i) preventive measures in all sectors, and activities to mitigate the impact of the event and for reconstruction in the selected sectors; (ii) program administration costs; (iii) financial auditing of the program; and (iv) the charge for inspection and supervision.
- 2.32 The administrative costs include: (i) the cost of operating the PCU team for three years; and (ii) independent external financial audits and environmental and technical audits.
- 2.33 The PCU operating expenses include: the remuneration of the coordinator, two accountants, an administrator, a systems specialist, and up to eight technical evaluators, including the environmental evaluator, the social evaluator, the institutional evaluator, and the procurement specialist. It also includes travel expenses and per diems for inspections of program activities.
- 2.34 The local counterpart resources, in the amount of US\$65 million, will be from the Treasury. The counterpart funds will be used to finance: (i) a portion of the costs of the prevention, mitigation, and reconstruction component; (ii) part of the administrative costs; (iii) interest on the loan during the execution period; (iv) the credit fee; and (v) taxes on goods and services (sales tax and tariffs). The latter expenses may be covered using local counterpart funds under category 2 in the cost table below.

COST TABLE (in US\$ millions)			
Category of financing	IDB	Local*	Total
1. <u>Administrative costs of the program</u>	1.5	1.2	2.7
1.1 Program coordination unit	1.2	1.2	2.4
1.2 Independent external financial audits	0.3	0.0	0.3
2. <u>Program components</u>	147.0	42.6	189.6
2.1 Prevention	30.0	13.0	43.0
2.2 Mitigation and reconstruction	117.0	29.6	146.6
3. <u>Finance charges</u>	1.5	21.2	22.7
3.1 Interest during execution	0.0	20.0	20.0
3.2 Credit fee	0.0	1.2	1.2
3.3 Inspection and supervision	1.5	0.0	1.5
TOTAL	150.0	65.0	215.0
PERCENTAGE	69.8	30.2	100.0

* Includes payment of taxes

III. PROGRAM EXECUTION

A. The borrower and the executing agency

- 3.1 The borrower will be the Republic of Peru. The executing agency of the program will be the Ministry of Economic Affairs and Finance [Ministerio de Economía y Finanzas] (MEF), through the Investment Office (OI), in which a program coordination unit (PCU) will be set up. The subexecuting agencies will be the ministries with jurisdiction over the areas in which the respective activities are to be carried out.

B. Program coordination unit

- 3.2 In the OI, the PCU will operate with a team specially designed to coordinate program execution. The PCU team will consist of a general coordinator, two accountants, an administrator, a systems specialist, and up to eight technical evaluators.
- 3.3 Of the eight technical evaluators in the OI/PCU, four have the following duties, respectively: (i) evaluation and monitoring of the social impact of the El Niño phenomenon on low-income groups and of the measures taken to ensure their personal safety and health and to prevent any future deterioration in their income and, on that basis, formulation of recommendations to strengthen the social security system; (ii) monitoring of the environmental impact of program activities; (iii) institutional monitoring of the program, to which end, given the nature of the program, the evaluator must have experience planning post-emergency recovery activities or seek outside support in this area; and (iv) followup on the procedures followed by the subexecuting agencies to procure goods and services under the program.
- 3.4 The coordinator, the environmental and social evaluators, and the procurement expert must be appointed as a condition precedent to the first disbursement.
- 3.5 The OI/PCU will also hire a firm to provide technical and environmental advisory services for the evaluation and monitoring of the activities to be carried out using program resources. The firm will be financed with World Bank resources under the emergency program the World Bank is preparing in parallel with the proposed IDB program.
- 3.6 If it should be determined during program monitoring that additional support is necessary to plan the post-emergency activities, the necessary international or national advisory services may be procured using program resources.

- 3.7 The duties of the OI/PCU will be as follows: (i) verify with the Council of Ministers the guidelines for the activities to be awarded financing; (ii) receive and review applications for financing and fulfillment by the proposed activities of the general and specific eligibility criteria; (iii) recommend financing for activities declared eligible, according to the program criteria and procedures; (iv) request disbursements of resources under the loan contract with the Bank and cooperate with the subexecuting agencies to obtain the local counterpart resources in order to ensure full funding of the program; (v) monitor the impact of El Niño on low-income groups in the areas affected and formulate recommendations as necessary on measures to ensure the physical safety of such groups, maintain social services, and prevent any further deterioration of their income; (vi) guarantee the environmental quality of the program and evaluate the environment eligibility of the proposed works according to criteria agreed upon with the Bank; (vii) centralize technical and accounting information on the program and keep the program books; (viii) prepare progress reports on the program for the Bank and provide any other technical, legal, economic, institutional, or financial information the Bank may request; (ix) ensure fulfillment of the obligations assumed for program execution; and (x) maintain close coordination with INDECI and the subexecuting agencies of the program.

C. Execution mechanisms

- 3.8 The program will be executed based on demand for the financing of eligible activities submitted by the subexecuting agencies to the OI/PCU. Such requests will be submitted by government agencies and regional and local institutions, which will assume responsibility for execution of the various activities and will be channeled the requests through the ministries to which they report or to which they are attached.
- 3.9 To the extent possible, the borrower will take into account the experience gained by local government agencies and private institutions (include nonprofit organizations) in the design and execution of the program activities, especially in connection with humanitarian aid, technical monitoring, and design of program dissemination mechanisms. The social specialist in the OI/PCU must be familiar with these institutions in order to make recommendations on their inclusion or hiring.
- 3.10 The eligibility criteria to be met by activities for funding under the program are described below.
1. General criteria
- 3.11 For a proposal to be considered eligible for financing using program resources, the following general requirements must be met:

- a. The proposed project must be located in an area in which a state of emergency has been decreed by the government according to current legislation, as a result of the direct impact of the El Niño phenomenon.
 - b. There must be a causal connection between the occurrence of the phenomenon and the damage experienced.
 - c. The project must fit in with the stages and sectors of activity of the emergency program.
 - d. The project must meet the environmental eligibility criteria for the program.
2. Specific criteria
- a. Stages and sectors of activity
- 3.12 In addition to the general requirements listed above, the project must also meet the following specific requirements:
- a. Prior to the emergency: (i) it must have been initiated after June 19, 1997, according to the procedures for the procurement of goods and services and for the awarding of construction contracts established in Peruvian legislation, acceptable to the Bank and consistent with the Bank's basic procurement principles with respect to economy, efficiency, due process, nationality of the firms, and origin of the goods; (ii) it must have a technical brief containing a description of the activity, its cost, and the procedure for the procurement of goods and services; (iii) it must have an itemized list of expenses and supporting documentation; and (iv) it must be approved by the governing authority for the sector.
 - b. During the emergency ^{1/}: (i) the project must have a technical brief containing a description of the proposed activities, indicating the execution period and the office responsible for execution; (ii) it must have an itemized list of expenses and supporting documentation; and (iii) it must be approved by the governing authority for the sector.
 - c. After the emergency: (i) the project must have a technical file, an environmental assessment, and a cost-benefit analysis; (ii) it must have an itemized list of expenses and supporting documentation; and (iii) it must be approved by the governing authority for the sector.

^{1/} "Emergency" activities are by definition activities of an urgent, temporary nature to restore essential services, to supply vital necessities that the population can usually procure on its own, or to take steps for public health and to provide medical treatment.

b. Sectors

3.13 In addition to the above-mentioned requirements, the proposals must meet the following sector requirements.

- a. For **preventive measures**, any of the sectors referred to in section B.1 of chapter II are eligible for financing.
- b. For **emergency and reconstruction** activities, only the following sectors are eligible: (i) **transportation**, including primary and secondary highways, rural roads, and the bridges on those routes; (ii) **sanitation**, including water supply, sanitary sewerage, and wastewater treatment; (iii) **health care and public health** infrastructure services, including hospitals, medical centers, and health posts, and equipment, materials, and medicine; and (iv) **humanitarian aid**, including the supply of food, clothing, medicine, and other vital necessities for the disaster victims, including those whose main source of income has been lost or substantially reduced, and the necessary preinvestment studies. Financing may be provided in any of these sectors for design and engineering studies for the respective works. In addition, by agreement by the Bank and the borrower, **other activities** not included in the above sectors that have no alternative sources of funding may be financed, including institutional strengthening of the civil defense system and social security system and preinvestment studies in all the sectors.

3.14 During the emergency, priority will be assigned to financing for activities that will mitigate the risk to the life, health, and security of the vulnerable population.

D. Project approval procedure

3.15 For a project to be declared eligible for financing under the program, the executing agency shall follow the procedure described below:

- a. The subexecuting agencies will submit to the OI/PCU an application for financing with supporting documentation, as set forth in the above-mentioned eligibility criteria.
- b. During the emergency, the OI/PCU will examine the proposal and issue an opinion as quickly as possible. If the opinion is favorable, the proposal will be forwarded to the drawing authorization committee for approval.
- c. During the reconstruction stage, the OI/PCU will examine the proposal and issue an opinion within a reasonable period of time. If the opinion is favorable, the proposal will be forwarded to the drawing authorization committee for approval.

- d. The drawing authorization committee will authorize drawings according to the investment schedule for each project.

E. Communication system

- 3.16 SINDECI has set up means of communication with the population in the vulnerable areas to provide information on what to do during disaster situations, where disaster victims can find shelter, and distribution points for food, water, and emergency medical attention. The means of communication include channels through which the needs of the general public can be reported and information can be disseminated by SINDECI.
- 3.17 The action plan for the El Niño emergency includes the participation of community organizations, which are considerably well developed in Peru. The biggest such organizations are mothers clubs and soup kitchens. Arrangements have been made for both organizations to channel food aid to disaster victims.

F. Financial execution mechanism

- 3.18 Applications for financing submitted to the subexecuting agencies will be approved by a drawing authorization committee made up of the Deputy Minister of Finance, the Chief of the Investment Office, and the Director General of the Budget. The committee is currently operating as a cashier's committee [*comité de caja*] and only needs the Investment Office Chief to become part of it.
- 3.19 The program resources earmarked for the financing of eligible activities will be deposited in a special account with separate bookkeeping from the executing agency's other accounts.

G. Recognition of expenditures, retroactive financing, and advance of funds

- 3.20 Given the fact that the preventive measures were initiated in June, when the state of emergency was officially declared, and that as of September 18, 1997, the government had spent US\$68 million and plans to spend an estimated US\$92 million more by the time the proposed loan is expected to be approved by the Board of Executive Directors (November 1997), it is recommended that: (i) a total of US\$13 million in expenses incurred be recognized as part of the local counterpart funding; and (ii) retroactive financing be granted for US\$30 million in expenditures. The project team reviewed a sample of the expenditures on a preliminary basis and found that they had been incurred following procedures similar to those set forth in the Operating Regulations.
- 3.21 In addition, considering that funds must be rapidly available to cover expenses during the emergency, it is recommended that a revolving fund be established for up to the equivalent of 20% of the total loan amount, or US\$30 million.

H. Commitment and disbursement periods

- 3.22 The period for commitment of the proceeds of the loan will be a maximum of two years from the effective date of the loan contract. The disbursement period will be a maximum of three years.
- 3.23 Within 12 months after the effective date of the loan contract, the borrower will submit to the Bank a list of the physical infrastructure works to be carried out using program resources. No new activities may be added to the list after that date, except for those extemporaneously requested to address the needs of geographically scattered low-income groups.
- 3.24 The estimated disbursement schedule will be as follows

DISBURSEMENT SCHEDULE				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Bank	80	60	10	150

I. Procurement of goods and awarding of contracts for construction and consulting services

1. Regular procedures

- 3.25 The procurement of goods and related services and the awarding of contracts for construction works and consulting services to be financed using program resources will be carried out in accordance with the Bank's procedures for procurement and for the selection and hiring of consultants (Annexes B and C to the loan contract) and the rules set forth in this document. Under the procedures, international competitive bidding is required when the value of the contract is over US\$350,000 in the case of goods and services or over US\$5 million in the case of construction works. International competitive bidding is required for consulting contracts in amounts greater than US\$200,000. The procurement of goods and related services and the awarding of contracts for construction works or consulting services below those thresholds will be governed by national legislation.
- 3.26 Procurement in amounts below the thresholds set forth in the above paragraph will be governed by national legislation. Competitive bidding will be required for the procurement of goods in amounts over US\$270,000; shopping will be required for goods in amounts between US\$85,000 and US\$270,000; and direct purchase for goods in amounts below US\$85,000. For construction contracts, competitive bidding will be required for amounts above US\$690,000; open calls for proposals for amounts between US\$230,000 and US\$690,000; and direct contracting for amounts below US\$230,000. Invitations to submit statements of qualifications will be required for consulting

services totaling in excess of US\$75,500 and direct contracting for amounts equal to or less than that threshold.

2. Special procedures

3.27 While the state of emergency remains in effect, the Bank has agreed to simplify its normal procurement procedures in order to allow the executing agency, if it so desires, to follow the following special procedures:

a. For procurement of goods and services above the thresholds for international competitive bidding:

- (i) Only one general procurement notice will need to be published in *Development Business*, indicating that the specific procurement notices will be published in the national press specified instead of in *Development Business*. The notices published in the national press will indicate that there will be no restrictions on international participation in the bidding.
- (ii) For the awarding of contracts for construction works and goods in amounts above the threshold, no prequalification will be required. Contracts for goods will be awarded to the lowest bidders. Construction contracts will be awarded using the postqualification method, under which the lowest bid is selected and subsequently verified as to whether the bidder qualifies or not.
- (iii) For the awarding of contracts for consulting services, the specific procurement notice will call for expressions of interest and, based on selection criteria, the most suitable firm to negotiate the contract will be selected. This system will be used rather than prequalification, short lists and invitations to submit bids.
- (iv) Other procurement methods may be used, such as direct contracting or force account, subject to proper justification and prior consultation with the Bank.
- (v) In addition, for works and goods, the executing agency may apply an expeditious procedure of restricted calls for bids under which bids are solicited directly from suitable firms that have previously participated in and qualified for similar public-sector international competitive bidding in the past three years.

b. For procurement in amounts below the thresholds for international competitive bidding:

- 3.28 In cases in which a state of emergency has been declared, procurement in amounts below the thresholds set forth in paragraph 3.25 will be carried out by direct contracting according to national legislation, which requires that calls for bids be issued to at least three bidders. There will be no restrictions on participation by firms or goods from the Bank's member countries.

3. Force account

- 3.29 The Bank will recognize expenses incurred by the government for goods procured and services rendered on force account during the emergency prevention and mitigation phase. In addition, the Bank may recognize up to US\$5 million in expenses incurred during the reconstruction phase.

4. Review procedures

- 3.30 With regard to the procurement of goods and the awarding of construction contracts requiring international competitive bidding, the Country Office will conduct an ex ante review of each case. For all other cases, the Country Office will conduct an ex post review of the supporting documentation for each case by sampling.
- 3.31 Services in amounts of US\$200,000 or more rendered by consulting firms will be subject to prior review by the Bank, which will examine the contracts, terms of reference, and selection procedures followed. Services in amounts of US\$50,000 or more rendered by individual consultants will be subject to prior review by the Bank. For consulting services below these thresholds, only the final reports will be subject to review.
- 3.32 If, as a result of these reviews, the Bank should determine that the procedures agreed upon have not been followed, the goods and services procured will not be accepted for financing under the proposed loan. The Country Office may increase or decrease the frequency and size of the sampling depending on the findings of its reviews and as it gains experience with the various subexecuting agencies.

J. Operation and maintenance

- 3.33 Each of the subexecuting agencies or end-beneficiaries of the works and equipment financed with Bank resources must agree to operate and maintain such works and equipment according to generally accepted technical standards. To this end, the borrower must submit an annual report within the first quarter of each calendar year, from 1999 until three years after the last disbursement of the loan, describing the state of repair of the works and equipment, based on the findings of the supervision conducted on

the representative sample of the projects financed with program resources.

- 3.34 Throughout the program execution period and until three years after the last disbursement of the loan, the borrower will allow the Bank to visit and inspect the projects financed. Should the maintenance be found to be unacceptable, the respective agency will be obligated to take the measures necessary to correct the situation.

K. Inspection and supervision

- 3.35 The Bank will determine the inspection procedures it deems necessary to cooperate in satisfactory execution of the program, including technical supervision of the works to be financed using the program resources. The OI/PCU must have its own supervision plan and provide all the cooperation that is needed for the optimum accomplishment of this purpose. From the amount of the loan, US\$1.5 million will be earmarked for general inspection and supervision of the program.

L. Program monitoring

1. Progress reports and final report

- 3.36 The PCU will submit semiannual progress reports to the Bank describing in detail the works and equipment financed, the beneficiaries reached, the procedures followed in the use of the proceeds of the loan, and the number of projects approved during the six-month period. In addition, a final report will be submitted consolidating all of the data on the entire program execution period.

2. Financial auditing

- 3.37 The OI/PCU will submit to the Bank audited consolidated income statements and audited consolidated statements of investments for the program. The first audit report on the program will cover the first six months after the first disbursement, and will be submitted to the Bank within 90 days after the end of that period. The second report will cover the following 12 months; and the third and final auditing report will cover the period up to disbursement in full. The latter two reports must be submitted to the Bank within 120 days after the end of the respective periods.
- 3.38 The data to be audited and submitted to the Bank must be based on the consolidated information kept by the OI/PCU on the use of the loan resources and the local counterpart funding, to be submitted by the subexecuting agencies in their disbursement requests.
- 3.39 The external auditors shall have access to the accounting records and supporting documentation kept by the subexecuting agencies, as required by the Bank. The external auditors will, selectively,

physically examine some of the works partially or fully financed using the proceeds of the loan, following their own procedures.

- 3.40 The external auditors will be the Office of the Comptroller General or a firm of independent auditors the Bank deems eligible.

3. Environmental monitoring

- 3.41 Generally speaking, because the activities to be carried out under the program are designed to mitigate the adverse impact of a natural phenomenon, their environmental impact will tend to be positive and their social impact highly beneficial. However, in order to minimize any possible environmental damage, the criteria described below have been established for the program.

- 3.42 **General criteria.** The following general criteria will apply to the OI/PCU activities:

- a. The program activities will be governed by the principles of sustainability. Any environmental impact must be promptly assessed, and measures taken to avert, mitigate, or offset any adverse environmental impact. In addition, any planning activities must include environmental and vulnerability criteria so that the areas in which reconstruction is carried out are not affected by similar phenomena in the future.
- b. Given the nature of the activities for prevention and immediate response to the emergency and the time constraints involved, environmental impact studies for those activities will be waived. However, an ex post audit will be conducted and, if any adverse environmental impact is identified, corrective measures will be taken using the program resources during the post-emergency phase.
- c. For projects to be carried out after the emergency, permanent reconstruction and rehabilitation works, procedures for environmental quality control will be established that will include: (i) preliminary environmental assessment; (ii) environmental impact assessment (EIA); (iii) environmental feasibility certification; (iv) supervision of the mitigation activities carried out; and (v) environmental monitoring and assessment. Only projects with a significant adverse impact will require an EIA.
- d. Given the nature and scope of the projects, environmental review of most of them will culminate in the preliminary environmental assessment. Projects subject to closer scrutiny will include those for reconstruction of transportation, sanitation, and health infrastructure works. In each instance, it will be verified that the project is in compliance with

Peruvian legislation and regulations on the environment, or, in their absence, recognized international standards.

- e. Care will be taken to ensure that the activities promoted by the program do not lead to intervention in parks, protected areas, cultural heritage sites, environmentally fragile areas, or high ecological risk areas. Also excluded will be areas subject to high risk and vulnerability to natural phenomena.
 - f. The population affected should participate to the extent possible.
- 3.43 **Sector environmental criteria.** Prior to the first disbursement, sector environmental criteria will be established and set forth in the Operating Regulations to govern the design, review, construction, and maintenance of the works to be financed with the program resources. These criteria will be reviewed by the CESI prior to their inclusion in the Operating Regulations.
- 3.44 To monitor the environmental impact of the program, the OI/PCU will hire an environmental specialist, whose terms of reference will be approved by the Bank, and whose duties will be to: (i) evaluate and verify the environmental eligibility of the programs and projects according to the general and sector criteria established for the program; (ii) organize, analyze, and systematize environmental data; (iii) ensure implementation of the measures to mitigate any adverse environment impact and of the environmental management plans; (iv) ensure completion of the necessary environmental impact assessments, in cases where the latter are required for reconstruction projects; and (v) institute procedures for consultation of and participation by the population affected.
- 3.45 In addition, within 120 days after signature of the loan contract, the OI/PCU will hire, using the proceeds of the World Bank loan (parallel to the IDB loan), the services of a consulting firm or specialized institution providing advisory services on technical and environmental matters to carry out an independent evaluation of implementation of the environmental measures taken under the program. The firm will conduct two types of activities and issue the respective reports: (i) it will review the works, the cost of which has been recognized by the Bank for retroactive financing, and compile a report that will include any necessary mitigation measures, to be financed using program resources; and (ii) it will evaluate the environmental impact of the reconstruction projects in transportation, health care, and sanitation, and any other sectors that may be agreed upon with the Bank, and will propose corrective measures in those cases in which noncompliance with environmental requirements is detected.
- 3.46 The OI/PCU will establish close coordination with the local environmental authorities so that their input and recommendations

can be incorporated into the program. Likewise, it must be receptive to the information, protection plans, experts, and other resources on emergency program management in other countries that may be available through other international organizations.

4. Institutional monitoring

- 3.47 In addition to the financial, technical, and environmental monitoring of the program, the OI/PCU will hire consulting services to monitor program execution from an institutional standpoint. Although the existing institutional system is considered effective in addressing emergency situations, the consultants will make recommendations that would strengthen it even further, if deemed necessary.

5. Special monitoring by the Bank

- 3.48 The Bank's Country Office in Lima, jointly with the OI/PCU, will prepare an inspection and monitoring visit plan to ensure smooth execution of the program. The plan will be periodically adjusted according to the needs that may arise during and after the emergency.
- 3.49 Along with regular monitoring and supervision of the projects, the Country Office in Lima will assign a specialist to be in charge of the program, who will work with a number of specialists in the sectors covered under the program, such as transportation, sanitation, and health.
- 3.50 Eight months after the date the loan is approved by the Board of Executive Directors of the Bank, Region 3 will submit a progress report to the Loan Committee detailing the status of program execution.
- 3.51 Since other programs are currently under way in transportation (836/OC-PE and 901/OC-PE), health (741/OC-PE), and sanitation (847/OC-PE), the Bank will coordinate use of the proceeds of the respective loans with the OI/PCU, when deemed appropriate in the case of emergency and reconstruction phase projects.

IV. PROGRAM FEASIBILITY, BENEFITS, AND RISKS

A. Institutional and technical feasibility

- 4.1 Peru has an effective system to handle emergencies, which has already been tested during the prevention phase and found to operate efficiently.
- 4.2 SINDECI, in which all sectors of the government participate, along with private organizations and the public at large, with the support of each ministry in programming, physical execution, and application of budgetary resources, is considered sufficient as an institutional system to handle the emergency. Moreover, the parallel World Bank loan includes an institutional strengthening component for approximately US\$3 million, to be used to enhance the technical and scientific capacity of the country to prevent disasters (IMARPE, Peruvian Geophysics Institute, and INDECI).
- 4.3 In addition, the OI/PCU team will be set up to channel financial resources to the various activities being carried out. It will coordinate directly with the subexecuting agencies all decisions affecting program operations, especially decision-making on resource allocation. The staff to be assigned to the OI/PCU is considered adequate for the financial and administrative execution of the program. The OI/PCU will strengthen its technical capacity through the advisory services of a technical and environmental supervision firm.
- 4.4 The sectors concerned will be represented by the ministries of the respective branches (subexecuting agencies). Project execution will be channeled through the regional or local agencies responsible or implemented directly through decentralized government agencies (OPDs) of the ministries. In any event, the projects will concern areas in which the subexecuting agencies have the necessary experience to implement them.

B. Environmental feasibility

- 4.5 The impact of natural phenomena such as El Niño profoundly alter the natural and human environment. Because the activities to be carried out under the program are designed to mitigate the adverse impact of the natural phenomenon, their environmental impact is expected to be positive and have a high social impact as well.
- 4.6 During the emergency, the activities to be carried out will target reconstruction of infrastructure damaged and restoration of services, as well as the provision of shelter, food, medicine, and safe water to disaster victims. Due to the nature of the activities and the time constraints involved, environmental impact assessments will not be conducted at this stage. The

rehabilitation and reconstruction projects may have an adverse impact on the environment, and will therefore be subject to the environmental eligibility criteria referred to in the Operating Regulations. Environmental impact assessment studies will be conducted and compliance with environmental regulations in the country will be verified.

- 4.7 The executing unit will hire an environmental specialist with clearly defined duties.

C. Program beneficiaries

- 4.8 According to estimates of the impact of El Niño on the population in low-risk departments, some 11.4 million people could be affected, of whom 6.3 million (55%) live below the poverty line.
- 4.9 The total population of the 14 departments located in the area in which a state of emergency has been declared is slightly over 11 million inhabitants, of whom 56% live in the northern region. However, the southern region departments are home to the population with the highest poverty rates, with Ayacucho, Huancavelica, and Apurímac being the most serious cases, with poverty rates of over 70%. It should be noted that the 14 departments overall have an average infant mortality rate of 62 per thousand live births, but that the average in rural areas is as high as 76 (the indicator for Latin America is 48).
- 4.10 Although the program does not exclusively target low-income groups, it is clear that to the extent that the measures for prevention and mitigation are successfully carried out, such groups will benefit from the program activities, since the victims of flooding and drought, lack of food and medicine, epidemics, and other disaster impacts live in the most vulnerable and poorest areas in both rural and urban communities.
- 4.11 It should be noted that a program is being implemented for intensive use of labor, through microenterprise, for various activities such as highway construction and maintenance, channel cleaning and construction, and activities in fisheries and agriculture, in order to provide employment for the population affected by the emergency.
- 4.12 Furthermore, the measures to rehabilitate or protect infrastructure, especially agricultural infrastructure, in the rural areas of the departments stricken will also benefit a large number of inhabitants, particularly in the departments in the Sierra region, where 63.9% of the rural population is poor.
- 4.13 It should be noted that given the impact on the poor, the OI/PCU will include a social evaluation specialist whose primary function will be to monitor the impact of the emergency, the needs of low-income groups, and how such needs are being met.

D. Participation by women

- 4.14 The food will be distributed mainly through organizations that are managed by women – the mothers clubs and soup kitchens – instead of by PRONAA, which is normally in charge of food distribution.

E. Human resettlement

- 4.15 For projects under which human resettlement is to be financed using program resources, the borrower must submit the following information to the Bank: the maximum duration of the temporary settlements, the system for their management, and the participation of women.

F. Program benefits and risks

1. Benefits

- 4.16 **Minimized economic impact.** The program will help reduce economic losses resulting from the impact of the El Niño phenomenon by keeping transportation routes open and by carrying out infrastructure works such as irrigation and drainage.
- 4.17 **Social impact.** The program will also help minimize the loss of life and prevent famine and epidemics during and after the emergency.
- 4.18 **Positive long-term impact on socioeconomic development.** The preventive measures being taken by the government are such that their impact goes far beyond the emergency and will contribute to permanent socioeconomic development in those areas in which the activities are carried out.

2. Risks

- 4.19 The main risk is that the program may not be properly sized if the intensity, duration, and effects of the El Niño phenomenon differ substantially from forecasts.
- 4.20 Another risk is that the various organizations and agencies that conduct different activities may not maintain proper coordination during the emergency, particularly during the reconstruction phase. This risk is minimal, however, in view of the good coordination demonstrated among the agencies participating in this phase.

LOGICAL FRAMEWORK. EL NIÑO EMERGENCY PROGRAM (PE-0188)

OBJECTIVES	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
The purpose of the program is to restore socioeconomic development to areas affected by El Niño.	GDP growth in 1998-1999 Sector growth in 1998-1999 Fluctuations in poverty rates in 1998-1999 in the departments affected	IDB monitoring mechanisms, through the Country Office Audits Evaluations	The primary assumption is that the duration and impact of El Niño is the same as that forecast. Although the techniques used to forecast natural phenomena are not perfect, there is the possibility that the actual duration, and impact of El Niño will be substantially from forecast. Another assumption is that the coordinating organizations and agencies that carry out the various activities during the emergency period will maintain proper coordination throughout the period.
The purpose of the program is to carry out activities to prevent the impact of El Niño and to rebuild the physical infrastructure damaged and restore services interrupted by it.	Number of works carried out and their impact during the emergency Number of works reconstructed after the emergency Services affected and in operation during and after the emergency	IDB monitoring mechanisms, through the Country Office Audits Evaluations	The primary assumption is that the duration and impact of El Niño is the same as that forecast. Although the techniques used to forecast natural phenomena are not perfect, there is the possibility that the actual duration, and impact of El Niño will be substantially from forecast. Another assumption is that the coordinating organizations and agencies that carry out the various activities during the emergency period will maintain proper coordination throughout the period.

OBJECTIVES	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>TS</p> <p>Prevention</p> <p>Mitigation during the emergency and reconstruction</p>	<p>Prevention works in operation</p> <p>Works for which financing was requested in operation</p>	<p>IDB monitoring mechanisms, through the Country Office</p> <p>Audits</p> <p>Evaluations</p>	<p>The primary assumption is that of El Niño is the same as that forecast. Although the techniques used to forecast natural phenomena are not perfect, there is the possibility that the duration, and impact of El Niño may be substantially from forecast.</p> <p>Another assumption is that the organizations and agencies that carry out the various activities during the emergency period will maintain proper coordination.</p>

OBJECTIVES	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p><u>measures in all sectors</u></p> <p>drainage in agricultural areas; clean up and protection of conditioning of roads, airports and ports; strengthening of ations system; reconditioning of the sanitation system; amilies in vulnerable areas; protection of schools, sites, and historic monuments; planting of fodder; of agricultural machinery and reforestation; wells; ks for fisheries infrastructure; procurement of medicine; the response capacity in the diagnosis of endemic food aid.</p> <p><u>for mitigation of the emergency and reconstruction</u></p> <p>: includes reconstruction of those segments of primary y highways and rural roads damaged by the event and ese routes, in order to reestablish passenger and freight links on the affected roads; also includes repair of e country's ports and airports by El Niño.</p> <p>nsists of rehabilitation of the water supply, sanitary d wastewater treatment infrastructure, in order to restore services to the population affected.</p> <p>sts of rehabilitation of the health care infrastructure (ical centers and health posts), and provision of the quipment, materials, and medicine; mass vaccination ill also be financed to prevent possible epidemics of fra, typhoid fever, hepatitis, dengue, and other diseases.</p> <p>aid for the <u>population affected</u>: consists of the supply of medicine, and other basic items to provide relief to the ected during the event, including those whose main me has been substantially cut back or lost altogether.</p> <p>her activities on which the Bank and the borrower may ture, such as institutional strengthening of the civil m, and preinvestment studies in all sectors.</p>	<p>Budget in US\$millions</p> <p>Administrative costs of the program: 2.7</p> <p>Program components: 189.6</p> <p>Finance charges: 22.7</p> <p>TOTAL: 215.0</p>	<p>IDB monitoring mechanisms, through the Country Office</p> <p>Audits</p> <p>Evaluations</p>	<p>The primary assumption is that of El Niño is the same as that fo Although the techniques used w forecast natural phenomena are there is the possibility that the i duration, and impact of El Niño substantially from forecast.</p> <p>Another assumption is that the o organizations and agencies that the various activities during the will maintain proper coordination period.</p>

PROPOSED RESOLUTION

PERU. LOAN ____/OC-PE TO THE REPUBLICA DEL PERU
(El Niño Emergency Program)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República del Perú, as Borrower, for the purpose of granting a financing to cooperate in the execution of El Niño Emergency Program. Such financing will be for the amount of up to one hundred fifty million dollars of the United States of America (US\$150,000,000) from the Single Currency Facility of the Ordinary Capital Resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.