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THE PERU POVERTY REDUCTION AND ALLEVIATION (PRA) PROGRAM

SEPTEMBER 2008
This publication was produced for review by the United States Agency for International Development.
It was prepared by Chemonics International Inc.

THE PERU POVERTY REDUCTION AND ALLEVIATION (PRA) PROGRAM

USAID Contract No. 527-C-00-99-00271-00

PRA / IVANNA NARDUZZI DOGUMET

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CONTENTS

USAID | PERU | PROYECTO PRA

DEL PUEBLO DE LOS ESTADOS UNIDOS DE AMÉRICA

Una alianza entre USAID/PERU, Sierra Exportadora, Minera Antamina y Cia de Minas Buenaventura para la reducción y el alivio de la pobreza.

LEFT: Fur artisan from Sicuani in the Cusco-Puno Economic Corridor, supplier of handcrafts for the CAFÉ BRITT chain in the Lima International Airport, Peru

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INSIDE FRONT COVER: Private investment in the Andes: floating cages for trout production in Lake Titicaca, Puno. Because of this initiative by Piscifactoría de Los Andes, the firm produces and exports 1,000 metric tons of trout annually, organizes 45 small local firms, generates more than 300 permanent jobs.

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FRONT COVER: Agroindustry generates much of PRA-supported labor, especially female labor. Pictured, workers in the processing plant of AgroMantaro in Concepcion, Junin.

PRA

BACK COVER: 52 percent of the jobs created by PRA-supported work in artisan activities went to women. In this picture, one of the more than 300 Ayacuchan artisan suppliers to the textile business of Macedonio Palomino.

PRA

Madedonio Palomino and his wife, Luzmila Huarancca, are two successful small business owners working with close to 300 weavers in the poor regions of Ayacucho. Their products are sold in exclusive stores in Lima and are exported to Colombia, Chile, Argentina, Europe, and the United States.

ACRONYMS

CONFIEP	National Confederation of Private Business Institutions
CRPAO	construction progress certificates
ESC	economic service center
FBT	Fernando Belaunde Terry Highway
FSC	Forest Stewardship Council
GDP	gross domestic product
IGV	value-added tax
IIRSA	Integration of Regional Infrastructure of South America
INRENA	National Natural Resources Institute
NGO	nongovernmental organization
PAMO	annual payment for operation and maintenance
PAO	annual payments for constructions
PCG	partial credit guarantee
PPP	public-private partnership
PRA	Poverty Reduction and Alleviation program
PROINVERSION	Peru's Agency for the Promotion of Private Investment
PRONAA	Peru's National Food Assistance Program
SEE	strategic environmental evaluation
TEU	twenty-foot equivalent
USAID	United States Agency for International Development
VRAE	Apurímac and Ene River Valley

In 2008, with PRA support, the AgroMantaro company, headquartered in Concepsion, Junin, began production of jalapeño peppers for processing and export in the Chanchamayo Valley region in La Merced, Junin.

EXECUTIVE SUMMARY

In the early nineties the Government of Peru introduced a series of drastic economic reforms to boost economic growth, fight hyperinflation, and reduce poverty. Despite the efforts and some good years, beginning in 1994 the economy took a downward turn with GDP growth slowing from 13 percent to less than 1 percent in 1998. As a result, poverty levels remained high and resistant to improvement. By the late nineties, half of all Peruvians were poor and 40 percent of these lived in extreme poverty.

To address the poverty issue, between 1994 and 1997, the United States Agency for International Development (USAID) worked closely with the Government of Peru to develop and implement a government anti-poverty strategy. Realizing that the best way to support the anti-poverty strategy was by taking advantage of the private sector and its ability to link poor people with markets and create job opportunities, USAID launched the Poverty Reduction and Alleviation Program (PRA) in 1998.

The goal of PRA was to contribute to poverty reduction by generating sustainable income and employment and mobilizing private-sector investment in key economic corridors of Peru, defined as natural commercial networks linking rural areas with intermediate cities that exhibit high rates of poverty and the potential for economic growth. To accomplish this goal, PRA included two main components: business services and public-private partnerships for infrastructure development.

Making markets and private investment work for the poor, PRA's business services component

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sought to promote private and market-driven enterprise growth and development through regional economic service centers (ESCs), which assisted individual client firms to overcome specific obstacles to business expansion. Quantitatively, success of this component was measured by new sales, jobs created, and investment in physical plant and related equipment to the PRA-assisted enterprises and comparing these indicators against annual targets. After nine years of implementation, PRA exceeded its life-of-program targets. PRA helped Peruvian micro, small and medium-sized businesses generate more than $300 million in sales; close to 82,000 new jobs; and $20 million worth of investment in 13 economic corridors. But most importantly, by assisting 220 business clients — either processors or traders — PRA helped to improve the productivity of more than 42,000 small businesses that established commercial linkages with PRA clients.

To name a few cases, because of PRA's intervention, more than 600 small trout producers throughout the Peruvian Andes have improved productivity and trout quality to the point that today they export, indirectly through Piscifactoría Los Andes, the most important Peruvian trout exporter. Additionally, close to 1,700 textile artisans have exported their production to the United States and Europe via Allpa, R. Berrocal, Royal Knit, Macedonio Palomino, and other main exporters of Peruvian handicrafts. In another case, more than 200 artichoke farmers in the Mantaro Valley saw a 30 percent increase in their incomes thanks to their commercial linkage with Agro Mantaro, a consortium of Peruvian, Spanish, and U.S. investors, that invested $845,000 in an artichoke processing plant with a capacity of 811 tons per month, an investment with no precedent in the Peruvian Andes. By looking at the investment in physical plant and equipment by PRA's clients and the long-term relationship that has been created between some clients and beneficiaries, it could be argued that PRA's impact is sustainable. In the case of Piscifactoría Los Andes, the investment of more than $1 million in trout breeding floating cages in Lake Titicaca and a nearby processing plant has generated $7.2 million in incremental sales and close to 300 permanent jobs in four years, and the expectation is that both sales and employment will continue to grow. This is also the situation of Mountain Lodge of Peru, a tourism business that has had incremental sales of $2.8 million and generated 235 permanent jobs just a year and a half after investing $1 million in the construction of eco-lodges and other tourism related infrastructure.

Leveraging public and private sector funds to increase the supply of key transport infrastructure through the public-private partnerships (PPPs) for infrastructure development component, PRA helped the Government of Peru increase the supply and quality of transportation infrastructure critical to facilitate enterprise development, improve produc-

PRA

USAID Administrator and Director of U.S. Foreign Assistance Henrietta Fore with textile entrepreneur Macedonio Palomino and his wife and partner, Luzmila Huarancca, during a visit to Mr. Palomino's workshop in Ayacucho, January 2008.

tivity and competitiveness, and spur economic growth in key regions. To do so, PRA did not build roads; instead, PRA provided technical assistance to the government in the design and implementation of concession type PPP transactions to finance, build, rehabilitate, operate, and maintain in the long-term major infrastructure projects in strategic regions of Peru. Between 2003 and 2007, PRA worked with PROINVERSION, the Peruvian agency in charge of implementing Peru's infrastructure concessions program, and other government agencies in designing and implementing five transport and energy projects:

- The $220 million Amazon North highway concession, a 25-year concession to finance, construct, rehabilitate, operate, and maintain 964 kilometers of highway connecting the cities of Paita in the west, and Yurimaguas in the east of Peru.

- The new Southern Container Terminal in the Port of Callao, a 30-year concession contract to finance, build, operate, and maintain a new, state-of-the art container terminal in the Port of Callao that will increase cargo handling capacity by 830,000 20-foot equivalent units (TEUs) by 2010. The concessionaire is required to invest $220 million for the construction of the first two berths (Phase I), $110 million in general improvements to the Port of Callao (Phase II), and intends to invest an addi-

Loading a truck with bananas from the jungle produced by the COPPU association in Aguaytia - Pucallpa Economic Corridor.

tional $253 million to further increase the new terminal's cargo handling capacity.

- The $115 million Amazon Central Highway concession, a 25 to 30 year contract to rehabilitate, operate, and maintain 847 kilometers of highway between Lima and Pucallpa and the highway connecting La Oroya and Huancayo. This concession will be awarded by PROINVERSION in 2009, shortly after the end of PRA.

- The Fernando Belaunde Terry, a 450 kilometer highway that connects the cities of Tarapoto, in the Department of San Martin, and Tingo Maria, in the Department of Huánuco. PRA completed the design phase of this transaction.

- Rural electrification. In an effort to expand access to electricity services in key rural areas of Peru, PRA evaluated options to leverage investments in four rural electric systems in the departments of Ayacucho and Ucayali.

PRA's success is reflected not only in the impressive results achieved throughout the years of implementation, but also in the profound effect PRA has had in changing the thinking about how economic development projects are implemented in Peru and the impetus PRA gave to Peru's infrastructure concessions program. In recognition of PRA's operational approach and unparalleled results, USAID, together with the Government of Peru's *Sierra Exportadora*, Minas Buenaventura, and Antamina, formalized the PRA alliance to fully embed the PRA approach in the *Sierra* of Peru. In the following pages, this report provides more information on the results PRA brought about during its life, an overview of how PRA achieved such unmatched results, and the lessons learned during nine years of implementation and their implication for the design of development programs in the future.

Marlinda Masgo, the leader of a group of woodworkers in Pucallpa, preparing an order for the export company ALLPA SAC.

CHAPTER ONE

WHAT HAS PRA DONE? WHAT RESULTS HAS IT BROUGHT ABOUT?

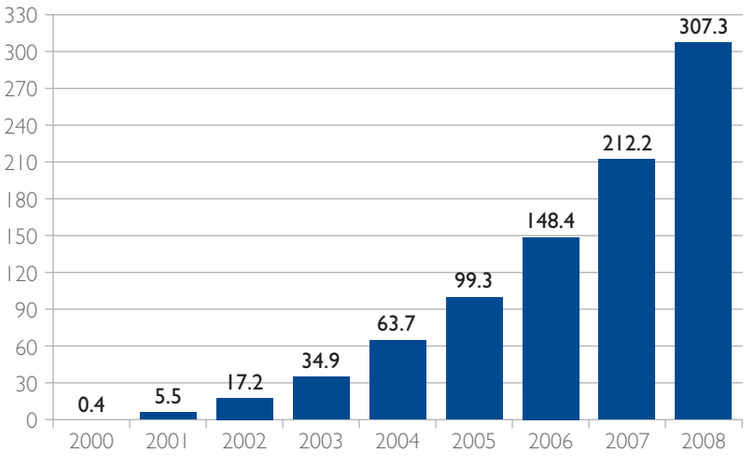
When the United States Agency for International Development (USAID) launched the Poverty Reduction and Alleviation (PRA) program in 1998, Peru was very different from what it is today. Despite some good years in the early 1990s, the Peruvian economy limped along from year to year, and poverty levels remained high and impervious to improvement, especially in rural areas of the highland (*Sierra*) and jungle (*Selva*) regions of the country. Labor was plentiful and poorly paid. Today the economy is much more buoyant, riding the crest of a number of years of steady if not spectacular growth. It is also different structurally. Optimism and investment have risen, and many areas now face labor shortages, especially in peak periods, which has had a positive effect on wages. That said, poverty remains a problem. Poverty rates have dropped — from 48.6 percent to 39.3 percent nationally between 2004 and 2007 — but more significantly on the coast than in the *Sierra* and *Selva*.

In very broad terms, PRA has consisted of two major components. Under the first, the Business Services component, PRA has operated Economic Service Centers (ESCs) in the interior of the country since 2000. The second, the Public-Private Partnerships (PPP) Infrastructure Finance component, has facilitated concession of the 964-kilometer Amazon North Highway and the Port of Callao and completed the transaction design work for the 867-kilometer Amazon Central Highway. The PPP component came into being in 2003.

Chapter One gives a bird's-eye view of the results that PRA has brought about during its life. It shows how PRA has achieved success in good and bad times

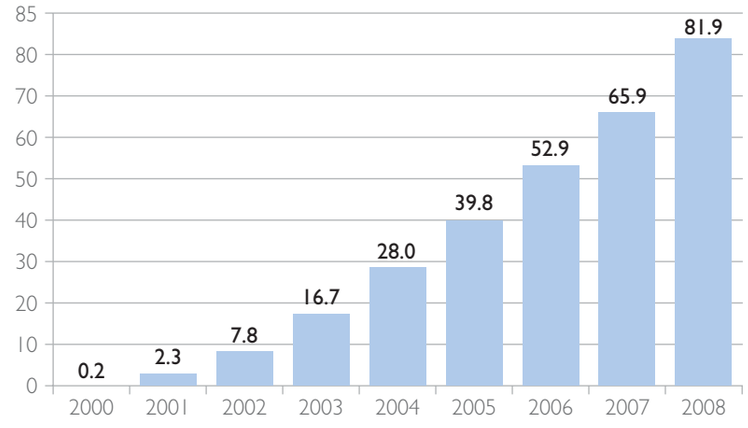
PRA CUMULATIVE NET SALES THROUGH SEPTEMBER 2008

IN MILLION U.S. DOLLARS



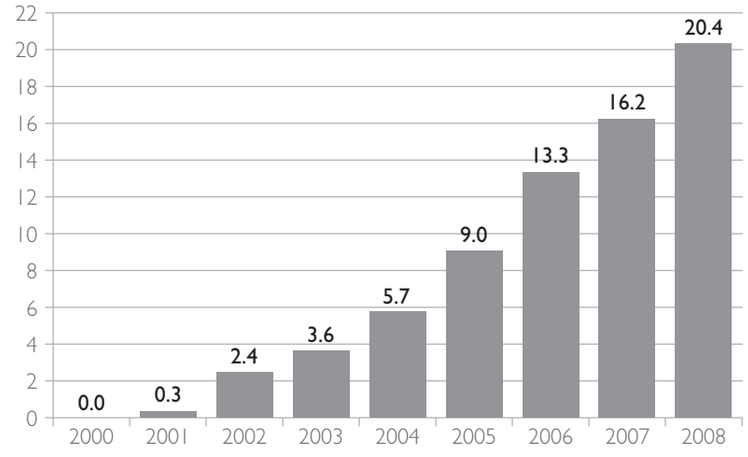
PRA CUMULATIVE NET PERMANENT JOBS THROUGH SEPTEMBER 2008

IN THOUSANDS



PRA CUMULATIVE INVESTMENTS THROUGH SEPTEMBER 2008

IN MILLION U.S. DOLLARS



and in both relatively propitious and less favorable working environments. The results have taken various forms, as the following pages illustrate.

BUSINESS SERVICES COMPONENT

Big-Picture Results

The Business Services component's measures of success have been the new sales of its business clients, the new jobs attendant to those sales, and investment by clients in physical plant and equipment. Each year, the program set targets for the three measures and monitored results closely against those targets. PRA did not meet each of its targets every year, but exceeded each of its life-of-program targets by a substantial margin.

PRA's sales, jobs, and investment results appear to the left to underscore the importance USAID and its implementation contractor attached to quantitative results throughout the program's life. Page 10 also shows the 13 economic corridors where the program has worked. Through September 2008, PRA helped

- Business clients increase their sales by $307 million
- Create 81,800 new jobs (full-time employment equivalents)
- Induce $20.3 million in investments by clients in plant and equipment

These results refer only to the new sales, new jobs, and investment that took place within the economic corridors where PRA

has worked, and therefore understate the full economic effect they have had.

Business clients in four of the corridors — Huancayo, Pucallpa, Cusco, and Jaén — accounted for more than half — 57 percent — of all new sales. Since PRA has not worked in all corridors for the same length of time, comparing the performance of ESCs is not straightforward. In Huaylas, Piura, and Cajamarca, for example, PRA maintained a physical presence for only three to five years. Their rank as the fifth-, sixth-, and seventh-ranked economic corridors with regard to cumulative net sales, far from reflecting relatively poor performance, is a tribute to what they were able to accomplish in a relatively short period of time. Ancash is a special case because it has been operating for less than a year[1].

As might be expected, the top four economic corridors in new sales appear among the top generators of employment as well. Intriguingly, although Ayacucho, Puno, and Tarapoto were laggards in generating new sales, they generated above-average levels of new employment.

Fifteen of PRA's business clients accounted for slightly less than half — 47 percent — of total new sales. The clients are in widespread geographic areas and offer a broad range of goods and services. Among all clients, rice, trout, palm oil, and fruits are the principal products supported by the program; however, in terms of percentages, they do not exceed other products by a large margin.

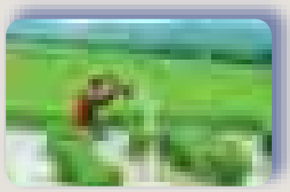
Reviewing the full list of products, it is tempting to conclude that PRA was primarily an agricultural program. But almost two-thirds (64 percent) of the program's clients engage in processing activities, not in primary production. In addition, many clients engaged in primary production sell their products to processors outside their economic corridors but still within Peru. Therefore, it is more accurate to say that PRA has been primarily an agro-industrial program, with the raw material coming from the countryside and the processing taking place in cities. That conclusion is consistent with the initial vision of the program — that is, one in which countryside and city would link within and among economic corridors.

IMPACT ON PEOPLE

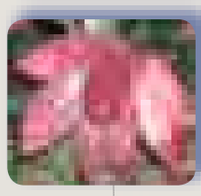
PRA's goal is to reduce poverty in the economic corridors where it works. At the beginning of the program, USAID financed independent baseline poverty surveys in the 10 original corridors of interest, but it did not repeat these surveys in the program's later years. With the benefit of hindsight, PRA's economic corridors have experienced so much change over the last decade — and the program's investment in each corridor has been so modest

1 For the reporting of results, a distinction is made between the Huaylas ESC and the Ancash ESC. The Huaylas ESC is the office in operation from 2000-2004, while the Ancash ESC is the office partially financed by the Antamina Mining Company.

CUMULATIVE RESULTS IN PRA'S ECONOMIC CORRIDORS

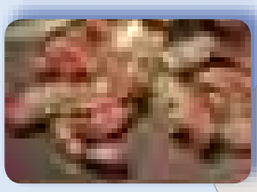


Jaen
- $39.3 million in new sales
- 10,100 permanent jobs
- $2.5 million in investment

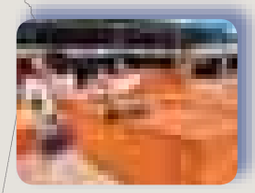


Tarapoto-Juanjui-Tocache
- $15.7 million in new sales (59% in AD)
- 8,200 permanent jobs (62% in AD)
- $1.1 million in investment

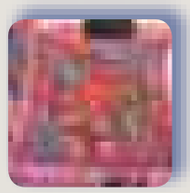
Piura-Tumbes
- $27.5 million in new sales
- 5,300 permanent jobs
- $2.8 million in investment



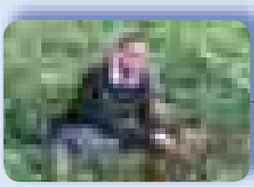
Cajamarca
- $17.8 million in new sales
- 4,300 permanent jobs
- $0.4 million in investment



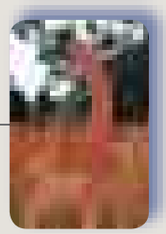
Pucallpa-Aguaytia-Tingo Maria
- $46.9 million in new sales (70% in AD)
- 11,000 Permanent jobs (83% in AD)
- $3.3 million in investment



Ayacucho-VRAE
- $19.7 million in new sales (45% in AD)
- 9,100 permanent jobs (21% in AD)
- $0.7 million in investment



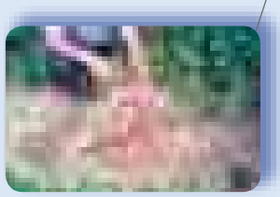
Ancash
- $2.2 million in new sales
- 800 Permanent jobs
- $0.1 million in investment



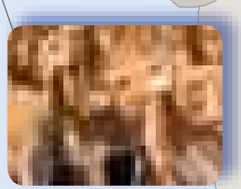
Cusco-Puno
- $40.1 million in new sales
- 9,000 permanent jobs
- $2.0 million in investment

Huaylas
- $21.3 million in new sales
- 2,500 permanent jobs
- $2.0 million in investment

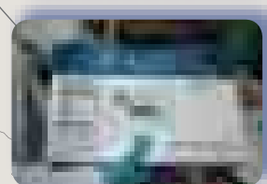
Huancayo La Merced
- $51.4 million in new sales
- 9,100 permanent jobs
- $4.9 million in investment



Huanuco
$9.3 million in new sales
2,700 permanent jobs
$0.2 million in investment



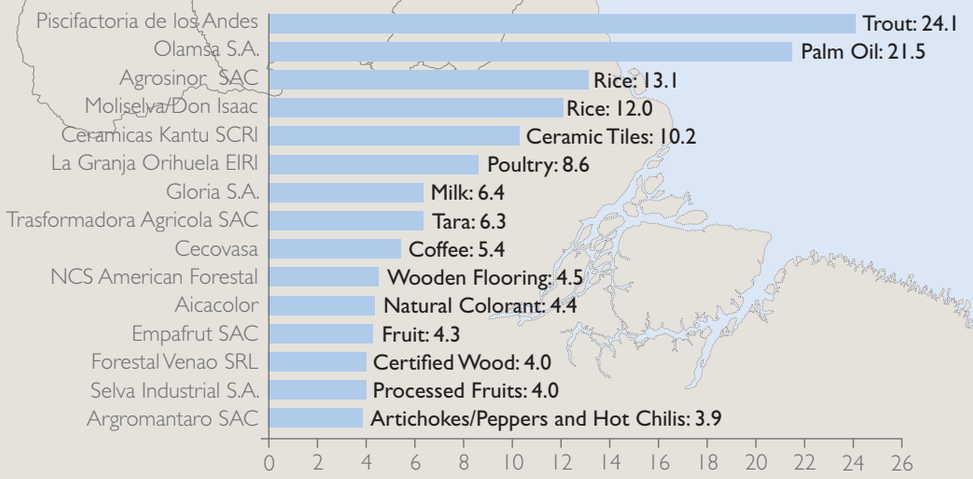
Huancavelica
- $5.1 million in new sales
- 2,200 permanent jobs
- $0.3 million in investment



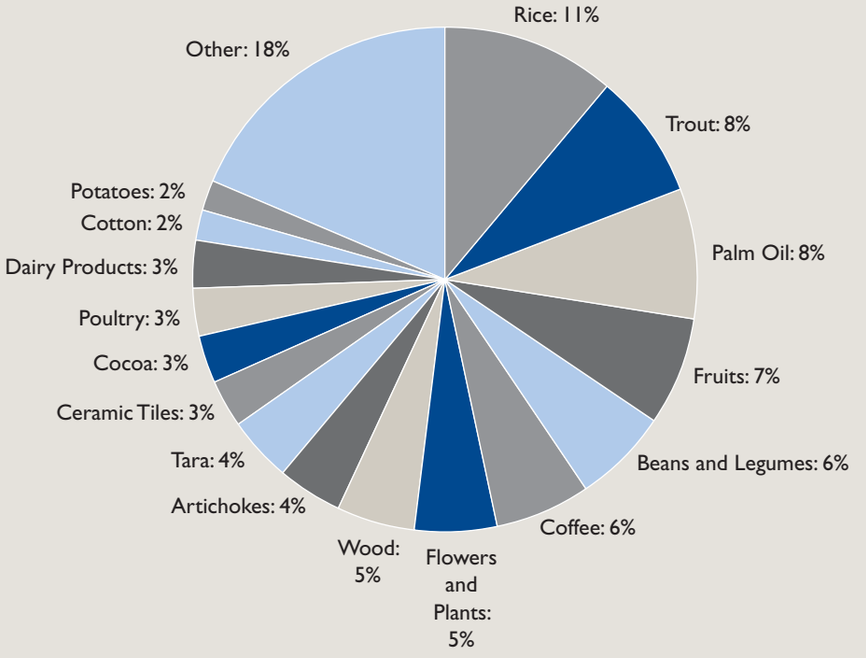
Puno
- $11.0 million in new sales
- 7,700 permanent jobs
- $0.2 million in investment

TOP FIFTEEN PRA CLIENTS
CUMULATIVE NET SALES THROUGH SEPTEMBER 2008

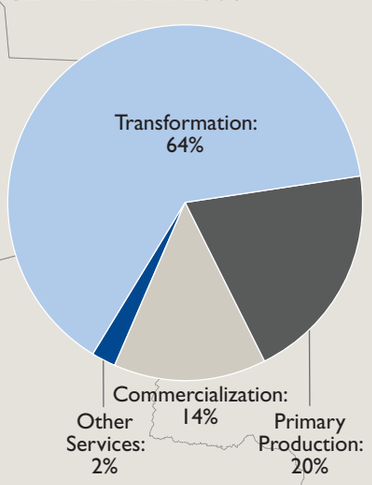
IN MILLION U.S. DOLLARS



PRINCIPAL PRODUCTS BY NET SALES
CUMULATIVE RESULTS THROUGH SEPTEMBER 2008



PRA NET SALES PERCENTAGE BY STAGE OF CLIENTS IN THE VALUE CHAIN THROUGH SEPTEMBER 2008



The Puno ESC closed in December 2004; subsequently the Cusco ESC took over the management of some of these businesses.

The Huaylas ESC closed in December 2004. In 2007 the Ancash ESC opened but with a wider area of intervention and partially financed by the Antamina mining company; thus, the reason for distinct results.

Santa Rosa de La Libertad, Huanuco: harvesting capiro potatoes planted under contract with Snacks America Latina-Frito Lay.

PRA

POVERTY RATES IN PRINCIPAL DEPARTMENTS WHERE PRA HAS WORKED

Department	2004	2007
Ancash	53.3%	42.6%
Ayacucho	65.9%	68.3%
Cajamarca	66.2%	64.5%
Cusco	53.1%	57.4%
Huancavelica	84.8%	85.7%
Huánuco	78.3%	64.9%
Junín	49.6%	43.0%
Piura	60.7%	45.0%
Puno	78.3%	67.2%
Ucayali	56.3%	45.0%
San Martín	51.9%	44.5%

in relative terms — that even had the follow-up surveys taken place, it would have been difficult to identify a statistically clear cause-and-effect relationship between PRA's efforts and corridor-wide changes in poverty status. In principle, the task might have been easier with control groups; in practice, selecting groups that really control for differences would have been much easier said than done.

Although it is difficult to prove incontrovertibly that PRA has reduced poverty, a substantial body of evidence that has accumulated over the years suggests that PRA has succeeded in reaching large numbers of poor people and has had a significantly positive impact on them.

The first evidence comes from the application to PRA of USAID's Poverty Assessment Tool (PAT) on PRA's interventions. The tool, designed for USAID by the IRIS Center of the University of Maryland, estimates the poverty levels of a program's beneficiaries. Specifically, it gauges the extent to which a program reaches the very poor, defined as people earning less than $1.00 per day[2].

PRA distinguishes between program clients and beneficiaries. Program clients typically are processors or traders that enter into formal relationships with the program through business plans. Most times, the processors or traders source from suppliers — typically small producers,

2. This study served to measure the level of extreme poverty for the microenterprises (small suppliers) linked to the business plan that PRA promoted in 2007 using the Poverty Assessment Tool. The PRA team only applied this previously designed tool.

"When we began collecting and selling milk, we were able to get 2.5 to 3 liters of milk per cow per day, and of low quality. With PRA´s help and technical assistance, we increased our productivity by reaching 5.7 liters of milk per cow per day, we increased the quality by 90 percent, and the assistance we received for phytosanitary certification allows us to provide a guaranteed product to our consumers. Without PRA's support this would not have been possible."

— **Oswaldo Álvarado, member of the milk producers' association APROLEC in Tingo María**

"In this campaign, which was the first for us in Cusco, the role of PRA has been fundamental. They gave us support in institutional relationships, helped identify new production areas, and gave us the confidence to enter into those new areas by providing important information regarding the soil quality, temperature, and water conditions."

— **Jorge Palma, technician of the artichoke export company ALISUR**

particularly farmers. Those small producers are the program's beneficiaries. At the time of the application of PAT in late 2007, PRA had 194 active clients who had backward sourcing linkages with 37,800 beneficiaries.

The team applying PAT surveyed 324 randomly selected households throughout the corridors where PRA works. They found an estimated 43 percent of PRA beneficiaries to be very poor. Given that the very poor are a subset of the poor, the findings suggest that, even though PRA's immediate clients normally are processors and traders, it has still been quite successful in reaching its ultimate target population.

A second body of evidence consists of the results of case studies conducted by independent third parties. Examples of such case studies include the following:

Impact on the welfare of women manufacturing gold chains in the city of Cajamarca[3]. This econometric study compares women employed by a PRA client in gold chain manufacturing in Cajamarca with a randomly selected control group. The study estimates that PRA support helped raise the incomes of the women and increased the hours they worked by an average of 119 percent and 103 percent, respectively. In absolute terms, the increases in income were sufficient to raise the women above Peru's extreme poverty line.

Impact on the welfare of artichoke farmers in the Mantaro

3. Pedro Mateu y Jean Vilca, Modelo de medición de impacto sobre el bienestar objetivo y subjetivo, Documento de Trabajo 62 (Lima: Universidad del Pacífico, 2004).

" We were concerned that we had unused fields. We were unable to begin producing anything because of our lack of capital and market connections. PRA helped us make contact with the firm Procesadora Mejía to produce pigeon peas. The company provided us with the machinery to prepare the plots, seeds, and soil disinfectants. PRA gave us continuous technical assistance in the fields. This relationship guarantees us something that we never had before — a sure market for our product and a minimum price that lets us work at ease. "

— MIGUEL MENDOZA, BEAN PRODUCER IN SULLANA

Valley[4]. This study uses a quasi-experimental design to compare farmers who produced artichokes for PRA clients with randomly selected control groups. The study estimates that the monthly incomes of PRA-supported artichoke farmers were 30 percent higher than they would have been without PRA support.

Impact on snow pea producers in Ayacucho[5]. Early in the program, PRA helped two clients introduce snow peas in Ayacucho. This study analyzes data from structured interviews with actors working with snow peas, from farmers to exporters. It also compares day laborers working with snow peas with a control group of day laborers working with commercial potatoes, the traditional crop in the area. The study estimates that:

- Snow peas generated $351 more in sales per hectare than commercial potatoes
- Snow peas generated 269 more person-days of employment per hectare than commercial potatoes
- Most of the additional employment went to women
- Day laborers working with snow peas earned 15 percent more per month than laborers working with commercial potato crops

A third body of evidence is the bevy of testimonials PRA has received from both clients and beneficiaries over the years. Although not scientific, they bring home the message that PRA's impact is much more than numbers; as the citations presented here illustrate, it has to do with how the program affects people's lives.

Since PRA primarily works directly with processors and traders — and, as a result, presumably gives them more personal attention — it may be natural to expect accolades to come from that quarter. What is not easily anticipated is the esteem with which PRA's beneficiaries regard the program. The team that conducted PRA's independent final evaluation interviewed a broad cross-section of beneficiaries throughout the country. They report:

Beneficiaries gave nearly unanimous praise for the technical assistance provided by PRA. The enthusiasm shown by small agricultural producers for their newly found markets and associated income was noticeably greater than feedback from producers of more traditional agricultural development projects. Said one beneficiary, "Before there was only one buyer (company A), it was a monopoly. Today (company B) quotes their price and the price does not go down, rather it goes up. If there were only one company, the price would be less. Thanks to competition, the people plant."

4. Gonzalo Talavera Forlin, "Medición del impacto del proyecto PRA sobre el bienestar de los productores de alcachofa en el Valle del Mantaro," Lima: Universidad del Pacífico, 2004.
5. Oscar Chaquilla, "Evaluación de impacto del holantao en Ayacucho," Lima, 2005.

> **"When we came to Ayacucho, we looked like Martians talking about things nobody understood. People did not want to understand or understood badly: value chains, market orientation, entrepreneurship, competitiveness… and we weren't giving things away…and we wanted to *help the poor* that way?**
>
> **Well, things are changing now, there are new organizations taking a business approach, old ones are reinventing themselves."**
>
> **—HERNÁN PAZ, FORMER BUSINESS ADVISOR, AYACUCHO ESC.**

ESTIMATED INDIRECT INCOME IMPACTS OF PRA ACTIVITIES, 2006

Department (Economic Corridors)	Percentage of Agricultural GDP	Percentage of Total GDP
Ancash (Ancash)	2.13	0.17
Ayacucho (Ayacucho)	8.26	2.35
Cajamarca (Cajamarca, Jaén)	4.58	0.80
Cusco (Cusco)	4.11	0.61
Huancavelica (Huancavelica)	3.26	0.75
Huánuco (Huánuco)	0.84	0.18
Junín (Huancayo)	2.41	0.44
Piura (Piura)	3.55	0.51
Ucayali (Pucallpa)	8.74	1.65
San Martín (Tarapoto)	6.44	1.90

SOCIOECONOMIC IMPACTS

PRA's impact has been subtle at times, and its effects have manifested in some surprising ways.

Cost-effectiveness and return on investment. PRA's Business Services component has not only delivered impressive results but has done so cost-effectively. Every dollar that the Business Services component has spent has resulted in $7.26 in new client sales.

In broader development terms, the Business Services component has also given USAID a high return on its investment. Under very conservative assumptions of the value that the Business Services component has added to the economy — that is, under liberal assumptions of the added value that clients and beneficiaries would have generated in the absence of the program — USAID has earned an estimated 27 percent return on the investment it has made in its implementation contractor. The benefits in this estimate derive only from direct sales only of PRA clients only within the corridors where PRA works only during the life of the program. These benefits do not take into account any copycatting, economic activity generated outside the economic corridors, continuation of benefits beyond the program's life, or broader income multiplier effects. Thus, the estimated return of 27 percent is very much a floor; the total return on USAID's investment has likely been much higher.

Impact on regional gross domestic product (GDP). The final evaluation attempted to take income multiplier effects into account. Specifically, it estimated the indirect income impacts of PRA activities on the main departments serviced by its ESCs in 2006. Most ESCs appear to have had a sizeable impact on regional agricultural GDP; and Ayacucho, Tarapoto, and Pucallpa appear to have had a visible effect on total regional GDP.

A small artichoke producer and a supplier to the AgroMantaro company in the province of Concepcion in the Junin region.

Structural changes in employment generation. The last years of PRA have evidenced a pattern of employment generation that differs qualitatively from that in the program's early years. Early on, it took roughly $9 to $12 in new sales to generate a person-day of labor. From 2005 on, that ratio has risen to the $15:1 to $24:1 range, suggesting, at first glance, that PRA has become much less efficient in generating jobs.

The truth is more subtle. Although it now takes twice as many sales to generate a person-day of labor, it takes half as much labor to generate the same amount of sales — which, all other things equal, suggests that the productivity of labor has risen. If economic theory serves as a guide, this should mean that labor earns more now than it did before. Accordingly, the early years of PRA appear to have increased the quantity of employment opportunities while the later years have improved productivity.

A close look at businesses supported by PRA suggests that this interpretation is correct. Labor productivity might be expected to have risen in relatively capital-intensive activities like the manufacturing of tiles by Cerámicas KANTU or processing of trout by Piscifactoría de los Andes. But productivity has also risen in primary agriculture. For example:

- In the last two years, AiB in Ayacucho has invested heavily

PRA

> **" USAID/Peru, through the PRA Project, proposes a methodology different from what nongovernmental organizations usually propose…PRA has gotten us a purchase commitment letter. This means that PRA has helped us with the most difficult stage of the process, which is the marketing of our products. We are guaranteed to make money since the price is indicated in the letter, and, thanks to this action by the PRA Project, 250 families can plan their lives better, pay for the schooling of their children, etc."**
>
> **—Tomás Villegas Roca, Mayor, Municipality of Moro, Ancash**

EXAMPLES OF EXPANSIONS IN HECTARES OF PRA-SUPPORTED CROPS

Product	Economic Corridor	PRA-supported Hectares	Additional Hectares
Artichokes	Huancayo	375	275
Black-eyed peas	Piura	1,870	400
Amaranth	Cusco	260	80

in artichokes in Secceslambra and Chiara in Ayacucho, bringing advanced technology to the area for the first time. Before the arrival of AiB, typical daily wages ranged between S/.8 and S/.15, without social benefits. AiB, a formal company, now pays S/.22 plus social benefits. Given the higher productivity per worker associated with the new technology, AiB could afford to pay the higher wage which, interestingly, has become the standard in the area.

- With the entry of Frito-Lay in Huánuco, potato farmers switched from traditional varieties to capiro, required by Frito-Lay for industrial processing. With Frito-Lay's assistance, yields have risen dramatically, from eight metric tons per hectare in 2001 to 15 to 18 metric tons currently. Potato farmers now sell — and earn — much more than they did years ago, but the higher production requires less labor.

Demonstration effect. The final evaluation team also attempted to quantify the extent to which other parties, seeing PRA's successes, replicated what PRA had done. During the relatively brief period of the evaluation, the team identified 25 instances of enterprises or producer associations that had invested in operations similar to those PRA had supported. The tangible evidence of the replication shows up often in sizeable expansions of hectares in crops supported by PRA. Perhaps more significantly, PRA's entry into a given area has frequently induced the entry of additional buyers, increasing competition and the prices farmers receive. When PRA entered Piura, for example, there was only one processor purchasing black-eyed peas. There are now seven.

Changes in thinking about development and how to attack poverty. PRA's demonstration effect has gone well beyond enterprises and producer associations. If imitation is the best form of flattery, then PRA's effect has been profound. According to the final evaluation:

PRA is changing attitudes and actions on how economic development projects are implemented in Peru. Nongovernmental organizations and project implementers are the institutions that most frequently are adapting the PRA market-pull methodology (38 instances). Unexpected by the evaluation team, municipal and regional governments are also observing the increased sales and revenue flowing back to their communities and allocating resources to support busi-

ness growth (32 instances). In addition, six other instances of organizations, including chambers of commerce, are using the PRA methodology.

PRA has affected thinking on development and poverty in many ways over the years. For example:

- Every year, Peru holds the prestigious *Creatividad Empresarial* competition. In 2002, the organizers introduced an award for excellence in development. PRA won the first prize in that category.

- In the same year, the University of the Pacific published *Attacking Poverty: A Market Approach*[6] (now in its second printing). Building on USAID's food security strategy eight years before, *Attacking Poverty* lays out much of the thinking underlying PRA's approach.

- In 2003, USAID's newsletter, *Front Lines*, reinstated its "Mission of the Month" column after a lapse of some years. The first Mission featured was USAID/Peru, and the one program featured was PRA.

- In 2005, USAID/Washington conducted an inventory and analysis of micro- and small-enterprise development programs worldwide, presenting the best programs of various donors. PRA appeared first on USAID's list of best programs.

- Throughout the years, professors and students from various universities have conducted research on PRA. The universities have not only been local but also included such foreign universities as Harvard, Northeastern, Stanford, and the University of Texas.

- PRA personnel are routinely in demand — both within Peru and abroad — to give presentations on the program's approach. PRA personnel have assisted sister USAID programs in Afghanistan, Armenia, Azerbaijan, Bolivia, Kosovo, Nigeria, and Paraguay.

Perhaps the most noteworthy example of others' buy-in — literally — into the PRA approach has been the financial and moral commitments that prominent Peruvian institutions have made to PRA. In 2002, Minas Buenaventura celebrated its 50 years of operations in Huancavelica by opening an ESC that was not independent of PRA but fully embedded under its management umbrella. Based on the successful experience of Minas Buenaventura in Huancavelica, Antamina made the same kind of commitment in Ancash. In a similar vein, when the government's *Sierra Exportadora* program was exploring alternatives to bring economic dynamism to the *Sierra* and effectively link poor people there with markets, it concluded that PRA was its best option. Further, rather than attempting

6. Riordan, James T. and Enrique Vasquez H., et al., *Attacking Poverty: A Market Approach* (Lima, Peru: Universidad del Pacifico/United States Agency for International Development, 2003).

to replicate the PRA approach completely on its own, the government joined Minas Buenaventura and Antamina in formalizing a "PRA alliance" with USAID. As a result, PRA is no longer considered simply a USAID program. It enjoys significant Peruvian support, and other interested parties can make commitments to PRA as well, thereby magnifying the overall impact of the program and its approach.

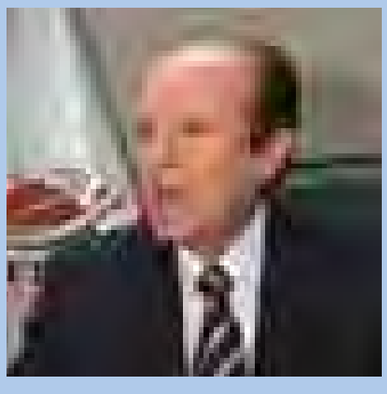
IMPACT ON THE FORESTRY SECTOR

In 2006, USAID added a forestry-support activity to PRA's Business Services component to achieve Forest Stewardship Council (FSC) certification of 400,000 hectares of forest land in Ucayali, Loreto, San Martín, and Madre de Dios. Applying a business approach, PRA provided technical assistance to both enterprises and native communities to help them achieve FSC certification, improve their standards of forest management, and become competitive in forestry product markets.

Briefly, the strategy for implementation consisted of four tasks:

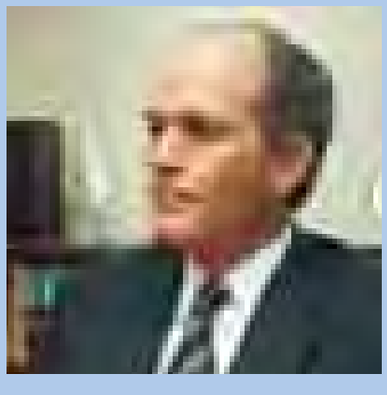
- *Selection of committed clients and insistence on compliance with work plans*. PRA selected its clients for this activity carefully. Criteria for selection included availability of capital, access to forest resources, and absence of sanitation problems and social conflict. PRA conditioned its technical assistance on client compliance with detailed timetables. Many clients did not comply and fell behind.

- *Training in implementation of the FSC certification process*. Since the FSC certification process is new in Peru, PRA



"We are interested in counting on PRA's successful experience in oats, red corn, and artichokes and its contribution to the export of tara, highland artichokes, trout, clothing, jewelry, beans, and legumes. It will be valuable for Sierra Exportadora, like PRA, to start with product demand as its point of reference for getting a grip on its tasks."

— Gastón Benza Pflucker, Executive Director of Sierra Exportadora



"I am convinced that Peru's business community is sensitive to the fight against poverty, but many are unaware of experiences that have been successful, their approaches, and their style of work. For me, PRA's conception that the fight against poverty rests on a business and market approach appears good, powerful, and constructive."

— Roque Benavides Ganoza, General Manager, Minas Buenaventura, and former President of the National Confederation of Private Business Institutions

BUILDING CAPACITY IN FORESTRY CERTIFICATION

PRA collaborated with the Rainforest Alliance-Smartwood to organize Peru's first intensive training course on FSC forestry certification. In Pucallpa, 28 forestry specialists — including technical experts from forestry clients, independent regional consultants, and strategic shareholders — participated in the 5-day course to build technical capacity in FSC forestry certification. The course was designed to strengthen the expertise of local professionals, enabling them to provide consulting services to forestry concessions and native communities in the implementation of FSC principles and criteria.

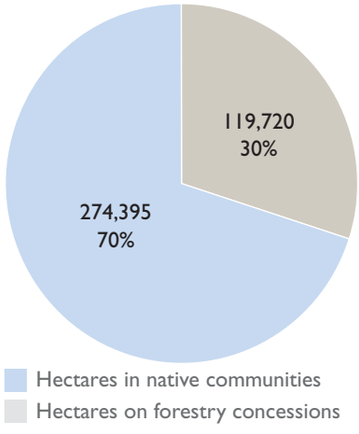
Ana María Limache, a forestry engineer and member of the group certification of Venao Foresty Company and six native communities of the Yurúa watershed in the region of Ucayali, participated in the course and will use her new skills to do her job better. "Thank you for your dedication and the time you invested in designing this course. It was an excellent opportunity for me to enrich my knowledge of the FSC forestry certification process. I am convinced that my participation will allow me to work more efficiently on all responsibilities assigned to me…"

PRA / HANS BULTGEMBACH

brought in international experts to train a cadre of Peruvian technicians at the same time that they resolved the technological problems of the activity's clients. The trained technicians are now taking staff positions with FSC certification companies, thereby reducing the shortage of qualified personal in the sector.

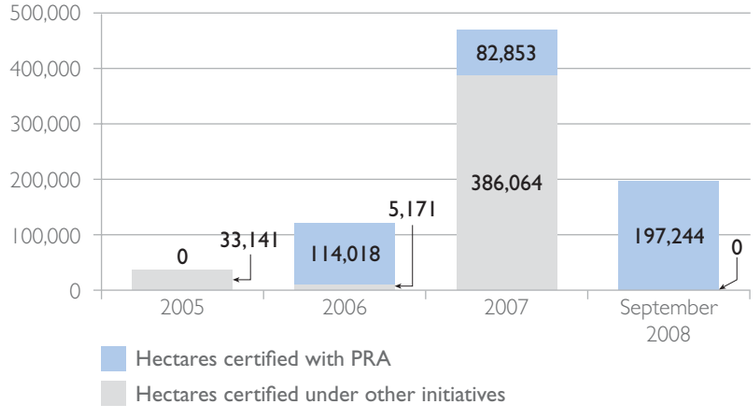
- *Consultation and consensus building*. FSC certification is a participatory process. For that reason, considerable technical assistance was devoted to building consensus with business groups, native communities, forest professionals, and regional and national authorities — especially the National Natural Resources Institute (INRENA), the country's oversight agency for forest resources.
- *Coordination with INRENA*. PRA worked closely with INRENA's forest certification

TOTAL HECTARES CERTIFIED WITH PRA



CUMULATIVE HECTARES CERTIFIED 2005 – 2008

IN MILLION U.S. DOLLARS



Forestry concession with Forestal Ortorongo, Madre de Dios region. USAID, through PRA, helped the company obtain FSC certification.

office to make administrative procedures more agile, reducing the time required to process certifications by as much as 60 percent.

Through September 2008, PRA has contributed to the certification of 394,115 hectares of forest with 70 percent of this certification occuring in collaboration with native communities as depicted to the left.

Just as sales and job results do not fully illustrate the impact of PRA's ESCs, neither do forestry hectareage statistics tell the full story of the impact of its forestry-support activity. The following examples describe how PRA's approach to certification has affected individual enterprises and native communities.

Linkage between Venao Forestry Company and six native communities in the Yurúa Watershed (*160,438 hectares of certified forest*). PRA helped forge an alliance between Venao Forestry Company and six native communities — Sawawo Hito 40, Nueva Shahuaya, El Dorado, Santa Rosa, Nueva Victoria, and Flor de Chengari — for sustainable management of forests and the marketing of wood products. These isolated communities depend entirely on forest resources for their livelihoods. Because of their alliance with Venao Forestry, the communities can now count on income every month of the year. Certification has helped make their forests more sustainable and has opened up possibilities of diversification under the Free Trade Agreement with the United States.

"PRA fits perfectly in a post-free-trade environment. By working with individual businesses, it brings along the laggards that otherwise would not be able to benefit from open markets."

— Pablo de la Flor

Former chief negotiator of the Free Trade Agreement with the United States

Currently Vice President of Corporate Affairs of Antamina Mining Company

Linkage between A&A Company and five native communities in the Pichis Palcazú Watershed (*34,344 hectares of certified forest*). The alliance between A&A Company and the native communities of Belén, Puerto Davis, El Milagro, Dinamarca, and Leticia has been a win-win proposition. On one hand, A&A's ability to source from the communities' certified forests has allowed the company to satisfy the requirements of its main buyer in China, Natura Group, for certified wood. On the other hand, forests in the Pichis Palcazú Watershed have relatively little high-value wood. The fact that the five communities' forests are certified has allowed them to drive a good bargain with A&A and benefit environmentally, economically, and socially.

Currently, few enterprises and native communities can comply with the requirements of the Free Trade Agreement. The few that can have achieved certification have traceability systems in place and comply with both Peruvian law and the environmental, social, and labor conditions of pertinent international agreements. The enterprises and native communities PRA has supported under its forestry-support activity have a competitive head start compared to their peers.

IMPACT ON INTERNATIONAL TRADE

In 2007, the government of Peru signed a free trade agreement with the United States, and it is currently pursuing free trade agreements elsewhere. PRA's success in helping clients gain access to export markets suggests that its approach is especially beneficial in countries opening up to free trade.

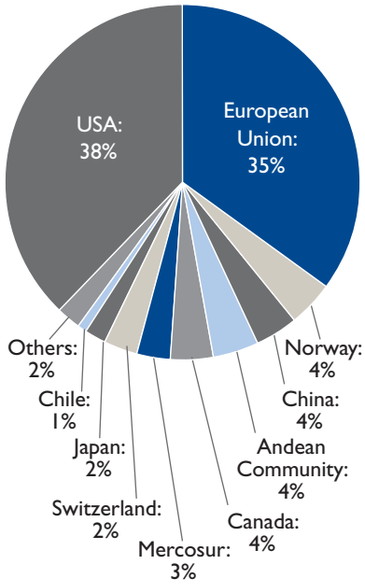
Of the $307 million in new sales that PRA clients generated through September 2008, $141 million went to export markets. The proportion did not vary substantially from year to year, hovering close to the life-of-program average of 46 percent.

Clients in four economic corridors accounted for 63 percent of the new export total. The top four economic corridors were Huancayo ($30 million), Piura ($21 million), Cusco ($21 million) and Cajamarca ($16 million).

PRA's top 15 export clients accounted for more than half — 51 percent — of new export sales. Piscifactoría de los Andes exceeded $18 million in new exports, achieving by far the largest number of new sales.

The two largest markets for PRA export clients were the United

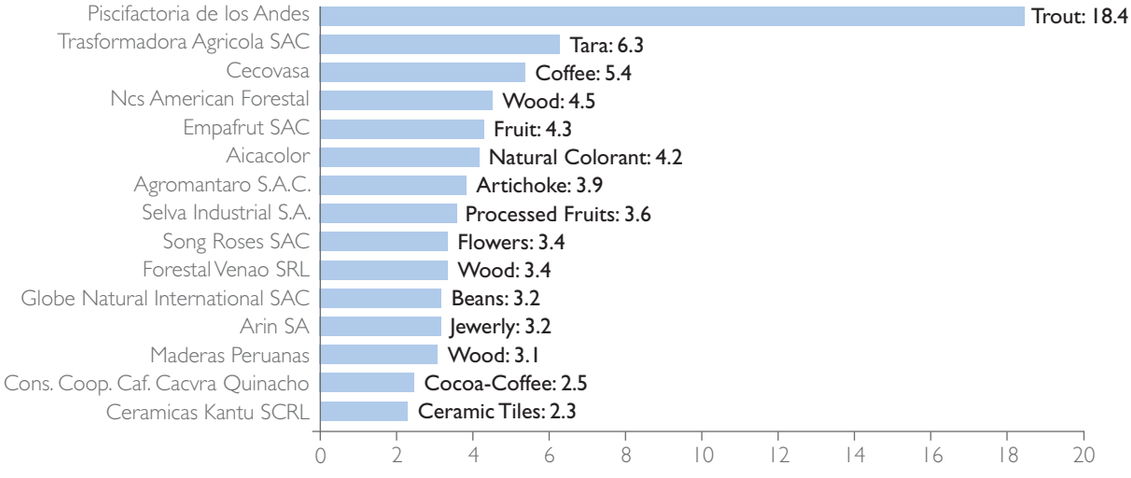
PRA PRINCIPAL EXPORT MARKETS THROUGH SEPTEMBER 2008



Close to 25,000 small producers working with over 100 PRA-supported enterprises and clients have indirectly exported nearly US $140 million of products to the United States, Europe, and Japan.

TOP FIFTEEN PRA EXPORT CLIENTS, CUMULATIVE NET SALES THORUGH SEPTEMBER 2008

IN MILLION U.S. DOLLARS



States (38 percent) and Europe (35 percent).

INFRASTRUCTURE/PPP COMPONENT

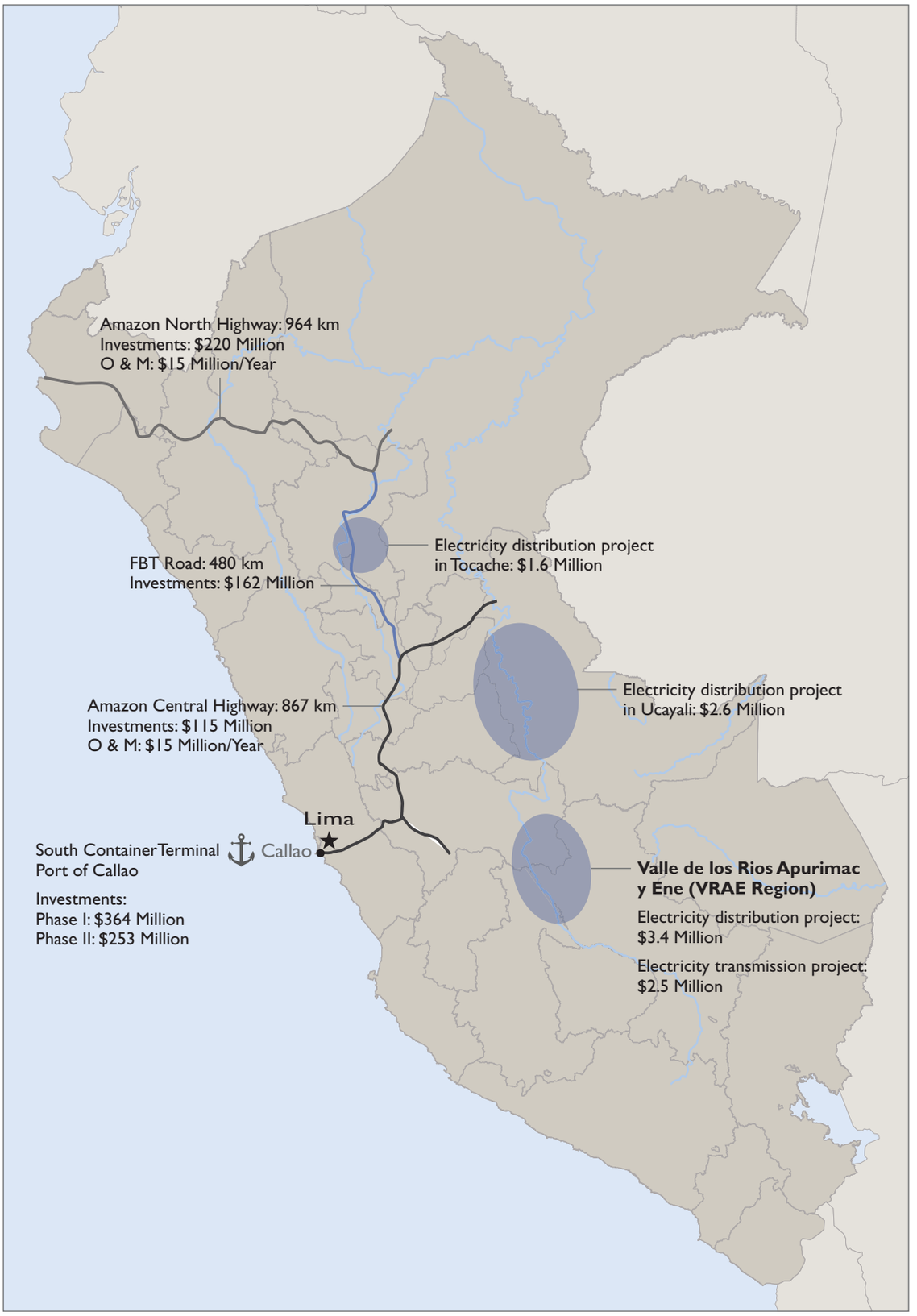
Big-Picture Results

PRA's Infrastructure component achieved unprecedented results. The program helped increase the supply and quality of transportation infrastructure critical to facilitate enterprise development, improve productivity and competitiveness, and spur economic growth in key regions of Peru. PRA did not design or build roads and ports; it supported the government of Peru in designing, structuring, and implementing innovative PPP concession business models and transactions to attract private investment and expertise to finance, build, operate, and maintain in the long-term major infrastructure projects. PRA's ground-breaking work resulted in:

- More than $584 million in firm private capital investment commitments to build and rehabilitate road and port infrastructure
- An additional $115 million in road infrastructure investment commitments expected shortly after the end of PRA
- More than 960 kilometers of all-weather highways to be built, rehabilitated, and maintained following international construction and service standards (approximately 10 percent of Peru's national highway network)
- The efficiency, cost-effectiveness, and competitiveness of port operations of Peru's main port to be significantly improved with the construction of a new, state-of-the art container terminal and improvements to overall port facilities
- The cargo-handling capacity of the Port of Callao to be increased by 830,000 20-foot equivalent units (TEUs) before the end of the decade and by 1.35 million TEUs by 2013
- In excess of $850 million committed to operate and maintain these road and port projects over the next 30 years
- World-class road and port developers and operators competitively selected to finance, build, operate, and maintain these major infrastructure concessions

All of these unprecedented achievements were the result of a close working relationship and collaboration between PRA and Peru's Agency for the Promotion of Private Investment (PROINVERSION), responsible for implementing the country's concessions in infrastructure program. Between September 2003 and June 2007, PRA worked closely with PROINVERSION, the Ministry of Transport and Communications (MTC), the Ministry of Economy and Finance, and other key government agencies in designing and implementing five transport and energy infrastructure public-private partnership transactions that will ultimately result in major investments in infrastructure and significant

PRA'S TRANSPORT AND ENERGY PROJECTS



improvements in the quality and efficiency of transport and rural electrification services in Peru.

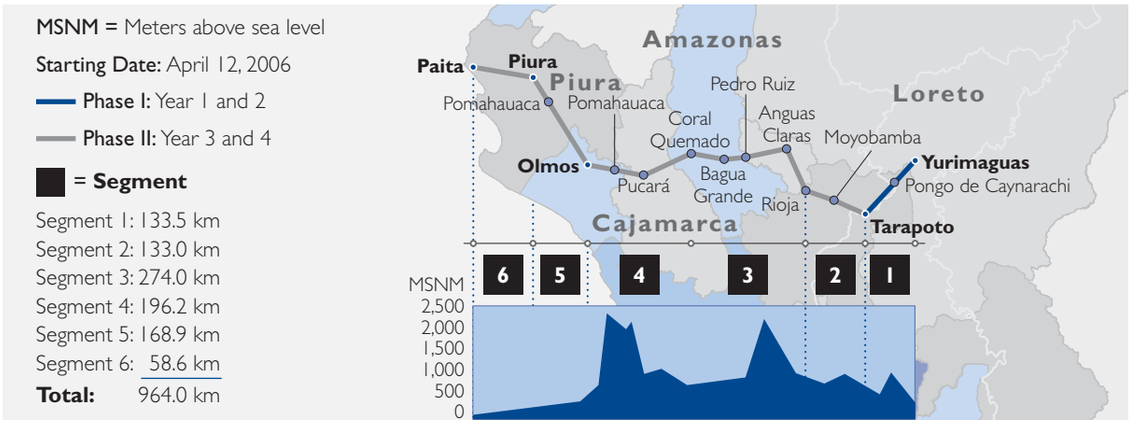
THE AMAZON NORTH HIGHWAY CONCESSION: PERU'S FIRST PUBLIC-PRIVATE PARTNERSHIP

The project. A 25-year concession to finance, construct, rehabilitate, operate. and maintain 964 kilometers of national highway between Paita, in the department of Piura on the Pacific coast, and the river port of Yurimaguas, a municipality servicing Iquitos in eastern Peru and Brazilian ports of call along the full length of the Amazon river to the Atlantic. When completed in 2010, the Amazon North highway concession will anchor the first all-weather road and river transport network across South America, greatly facilitating two-way commerce between Peru and Brazil and fully integrating, for the first time, Peru's developed coastal regions with its less developed, mountainous Andean region and the extensive tropical region extending deep into the Amazon basin.

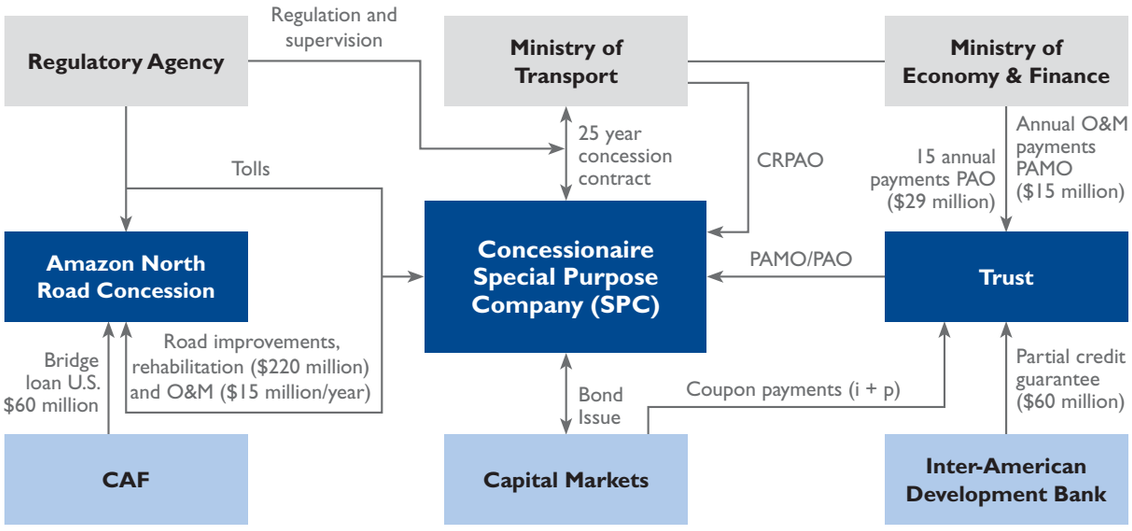
This pioneering public-private partnership concession is clearly one of the most ambitious achievements of the Peruvian government and a credit to its commitment to rigorous project preparation and transparent competition. The signing of the Amazon North contract in June 2005 followed an aggressive local and international promotion process and search by PROINVERSION, with USAID support, for qualified investors and infrastructure operators.

The transaction. Awarded by PROINVERSION in April 2005, the Amazon North Highway concession contract was signed in June of the same year by the MTC and Concesionaria IIRSA Norte, a consortium of Brazilian and Peruvian investors and construction firms led by the Brazilian Oderbrecht S.A. and formed by Constructora Andrarde Gutierez S.A., also from Brazil, and the Peruvian Graña y Montero S.A.A. Concesionaria IIRSA Norte is required to raise private financing to cover the initial investment costs and to

AMAZON NORTH HIGHWAY SEGMENTS AND PROJECT PHASES



THE AMAZON NORTH TRANSACTION STRUCTURE



finance annual maintenance of the highway. The rehabilitation and construction of the highway began in April 2006 and will be completed in two two-year phases. The construction of Phase I is on schedule to be completed in October 2008. The concessionaire has already mobilized more than $220 million in initial private capital investments to finance the rehabilitation and construction of the highway and is investing about $15 million per year (about $375 million through 2030) to ensure its proper operation and maintenance following international road service standards established in the concession contract. Once completed, the Amazon North highway will represent about 10 percent of the national asphalted highway network and will be one of the largest road concession projects in the world.

The completed road is not expected to generate sufficient revenues through toll collections to cover its construction costs. In lieu of strong toll revenues, the government will compensate the concessionaire for construction progress with annual payments for construction (*Pago Anual por Obras* — PAO) and will issue construction progress certificates (*Certificado de Reconocimiento de Pago Annual de Obras* — CRPAOs) prorated to the advance of works. CRPAOs are certificates that the government of Peru issues through the MTC. Each certificate is evidence of the government of Peru's unconditional and irrevocable obligation to make a fixed payment in U.S. dollars. The concession agreement provides that CRPAOs are freely transferable and that, once generated, they are not subject to any condition or performance obligation related to the concession agreement. This key feature of the transaction facilitated the long-term financing for the project financing through the securitization of

these certificates. The concession also features an annual payment for operation and maintenance (*Pago Anual por Manteniminato y Operación* — PAMO) of up to $15 million, with collections from tolls deducted from this payment. The PAMO and PAO were the basis for the competitive bid. Finally, the transaction benefited from a partial credit guarantee (PCG) provided by the Inter-American Development Bank (IDB). The PCG, another key element for the project's financing, covers the government of Peru's payment obligations under the PAO/CRPAOs for an amount up to $60 million.

Status as of June 2008. Concecionaria IIRSA Norte began construction and operation of the road in April 2006. In June of that year, financing for the project was secured through a $214 million bond issue in New York through a securitization of CRPAOS. As of June 2008, the concessionaire has received construction progress certificates for 97.51 percent of Phase I and 12.31 percent of Phase II. Progress to date includes the construction of 57 kilometers between Pongo de Caynarachi and Yurimaguas, and the rehabilitation of the 230-kilometer Paita-Piura-Olmos segment. President Alan Garcia inaugurated both segments in June 2008. The Tarapoto-Yurimaguas segment is scheduled to be completed by October 2008.

THE NEW CONTAINER TERMINAL CONCESSION IN THE PORT OF CALLAO — "...A USAID HOME RUN"[7]

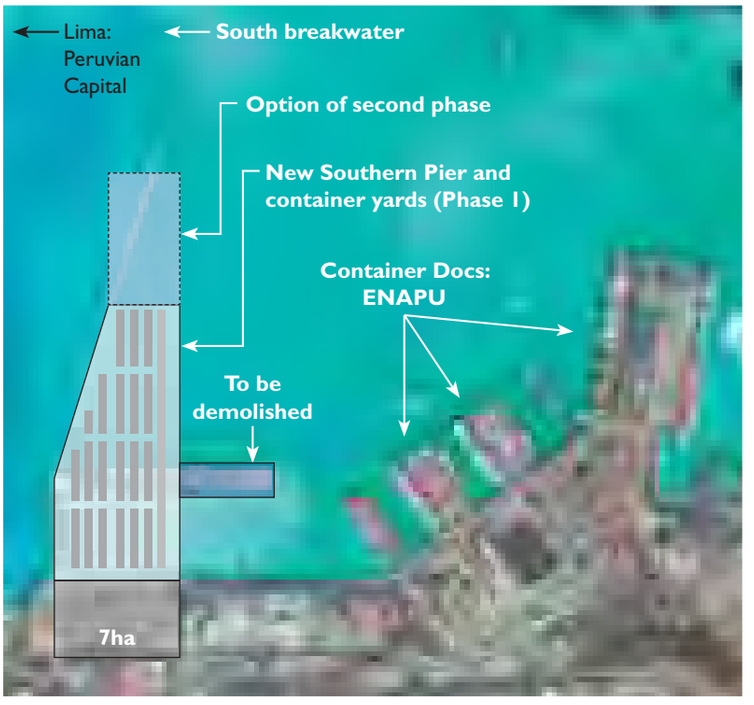
The project. The new Southern Container Terminal (SCT) is a 30-year concession to finance, build, operate, and maintain a new, state-of-the-art, container terminal in the Port of Callao, the largest and most important port serving Peruvian cargo. Callao is also the largest and fastest-growing container port on the west coast of South America, with a compound annual growth rate of more than 14 percent since 2000. The new terminal will become the first facility in the port to be equipped with gantry cranes, with six in operation by the completion of Phase I. The concession will correct many problems in the present facility and operating system that have affected the trade community and the competitiveness of Peruvian products for years:

- Inefficient ship handling/long ship stays. The lack of shore-based cranes mandates the use of slow ship gear, resulting in long berth time for ships

- Inefficient and costly terminal handling. Insufficient on-dock space requires direct ship-to-truck transfer of containers and use of off-dock dry ports, resulting in extra handling and transport operations and more than tripling the total cost of unloading a container — $500

7 James W. Fox, USAID Economic Growth Conference, October 18, 2007.

NEW CONTAINER TERMINAL IN THE PORT OF CALLAO



per TEU compared to $160 per TEU at other ports in the region

- Ships' waiting time. Insufficient berth length to accommodate container ships of more than 200 meters in length results in longer wait times

- Inability to handle large ships. Insufficient depth hinders the accommodation of container ships of greater than 11 meters draft

- Interference by other operations. Passenger, mineral and liquid bulk operations impede the efficiency of container operations

All of these problems will be resolved when the SCT begins operation in the second half of 2009. The concession contract and development plan proposed by the winning concessionaire specifically address these problems and provide immediate and temporary solutions until the SCT becomes operational. All aspects of the design and construction of the port were left to the winning bidder, with the concession contract specifying the dimensions of the port only in general terms. The new facility will initially be constructed with two berths comprising 660 meters of quay line, 14 meters of depth for docking ships, and 22 hectares of yard. The berths will initially be capable of handling vessels of 5,500-TEU nominal capacity. Initial cargo volume at the new SCT is expected to begin at 830,000 TEUs per

> **" This concession's effect on poverty reduction will be extremely significant. It will help increase exports and will create thousands more jobs than those directly generated by the Port… "**
>
> **—JUAN SUITO, NATIONAL DIRECTOR OF CONCESSIONS, MTC**

year. Further development will be phased in commensurate with demand growth, with total capacity projected to reach 1.35 million TEUs.

The transaction. Signed on July 24, 2006, the 30-year concession contract concession was awarded by PROINVERSION and the National Port Authority (APN) to DP World Callao S.A, a consortium led by DP World through its subsidiary P&O/ Dubai Ports (70 percent), with the balance held by the Peruvian Uniport S.A. To win the highly competitive bidding process, DP World Callao S.A offered the lowest possible tariff index plus $144 million in general port improvements, or $100 million more than the next bidder. DP World Callao S.A estimates capital expenditure of approximately $220 million for the construction of the first two berths and intends to invest an additional $253 million to increase the new terminal's capacity to 1.35 million TEUs once it reaches 70 percent of operating capacity. Altogether, the winning bidder committed to invest more than $600 million in Peruvian port infrastructure. This was incurred without even a monopoly on container traffic in the port of Callao, as ENAPU, the existing government corporation operating the rest of the port, is seeking to compete by investing in gantry cranes and other complementary equipment.

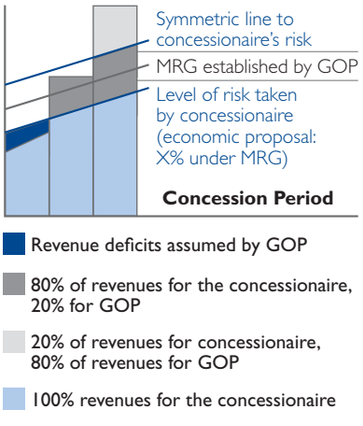
THE AMAZON CENTRAL HIGHWAY CONCESSION

The Project. The Amazon Central Highway concession was designed as a long-term (25 to 30 years) public-private partnership to rehabilitate, construct, operate, and maintain 847 kilometers of national highway between Lima, on the Pacific Coast, and Pucallpa in the eastern department of Ucayali, and the highway connecting La Oroya and Huancayo within the department of Junin. The project is expected to leverage more than $115 million in private capital investments and guarantee the operation and maintenance of the road, in accordance with international service quality standards, for the term of the concession contract. The concessionaire is expected to recover its initial investments, and cover the operation and maintenance costs exclusively through the collection of tolls along the corridor for the life of the concession.

To facilitate the financing of the road, the government of Peru is expected to provide, through the Ministry of Economy and Finance, an optional minimum revenue guarantee. The level of this guarantee will be determined at the bid stage by using the revenue risk assumed by the concessionaire as the bid selection criteria. If revenues are higher than expected, the mechanism also establishes a public-private revenue-sharing mechanism. These types of innovative transaction design features not only help improve the bankability and attractiveness of the concessions but also protect the public interest by providing procedures to share larger than expected revenues.

AMAZON CENTRAL HIGHWAY CONCESSION

THE AMAZON CENTRAL HIGHWAY CONCESSION BID SELECTION CRITERIA



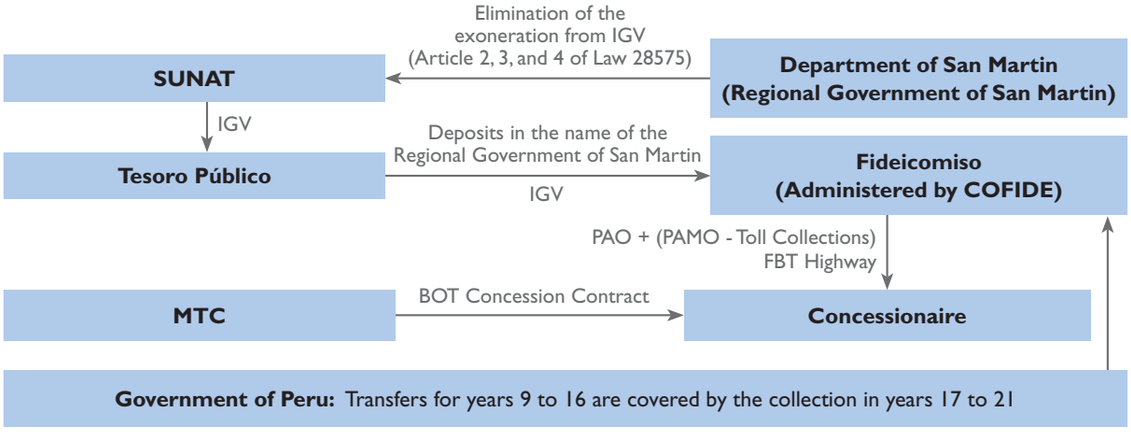
Status as of June 2008. PRA completed the technical, legal, and financial transaction design and worked with PROINVERSION in drafting the *Bases* and concession contract. The government of Peru is currently revising the transaction structure and investment promotion plan. The Amazon Central Highway concession is scheduled for award in the first quarter of 2009, shortly after the end of PRA.

THE FERNANDO BELAUNDE TERRY (FBT) HIGHWAY

The Fernando Belaunde Terry highway covers approximately 450 kilometers of roadway between the cities of Tarapoto in the department of San Martin and Tingo Maria in the department of Huanuco. PRA has made completion of the FBT an imperative since 2001, when the highway was highlighted in a PRA transport infrastructure report as the key project that would unleash the agriculture potential of the Huallaga Valley and Central Peru. In 2006, after years of work by *Asociación de Municipios de la Región San Martín* (AMRESAM), the regional government of San Martin, the provincial government of Tocache, and the FBT board (*Directorio de la FBT*), which USAID was instrumental in founding, legislation was passed in Congress eliminating the exoneration of the department of San Martin Department from the value-added (IGV) tax. The proceeds of IGV tax revenue, estimated to yield approximately $14 million annually for 50 years, now flow to a trust fund specifically earmarked for the completion of the FBT highway.

Even with this substantial annual funding from the FBT Trust Fund, it would still take more than 10 years to complete the remaining segments of the highway if the MTC constructed it through the traditional public works bidding and tendering process. This timeframe can be dramatically shortened by leveraging private investment capital through a well-structured public-private partnership arrangement. PRA's assessment and transaction design work con-

THE FBT TRANSACTION STRUCTURE



cluded that a PPP for the FBT is a viable alternative with funding from the proceeds of IGV tax revenue for 21 years and minimal additional government subsidies to cover cash-flow deficits after Year 9 of the concession. Unfortunately, due to the early termination of the Infrastructure/PPP component, the PPP transaction structuring and implementation work was not completed.

RURAL ELECTRIFICATION: LEVERAGING INCREASED RURAL ACCESS TO ELECTRIC SERVICE

In an effort to foster public-private partnerships to expand access to essential electricity infrastructure services in rural areas, PRA evaluated options to leverage investments in four rural electric energy systems in the departments of Ayacucho and Ucayali. These include electric transmission and distribution systems in San Francisco (Etapa II and Etapa III) in the VRAE region and an electric distribution project interconnecting communities between Pucallpa and Aguaytia and extending southwest beyond Aguaytia to Boqueron. While the towns of Pucallpa and Aguaytia enjoy adequate transmission service (138 kV), San Francisco in the department of Ayacucho is supplied by a small, isolated hydroelectric plant that has insufficient capacity to provide service to the new projects, should they be financed. Therefore, construction of a 66 kV transmission line connecting Ayacucho and San Francisco was proposed to facilitate distribution service to the communities served by Etapa II and Etapa III. PRA completed the technical and financial design of these four PPP projects.

By promoting and facilitating the participation of the private sector and turning to private capital markets for the required investment financing in all these major infrastructure projects, PRA helped the Peruvian government decrease pressure on its budget, freeing scarce tax revenues to be focused on other public-sector priorities such as education and health while still ensuring sustainable investments in infrastructure construction and maintenance. Further, by focusing its interventions exclusively on the transport infrastructure geographically located within the alternative development departments of Ayacucho, Cusco, Huanuco, Junín, Pasco, San Martín, and Ucayali, PRA helped to improve the competitiveness of enterprises and products in those regions and established the foundation for a licit business environment and viable alternatives to coca.

In September 2005, due to significant budgetary constraints, USAID/Peru instructed PRA to wrap up the Infrastructure/PPP component by the end of July 2006. That closeout date was subsequently extended, but only to continue to provide limited technical assistance to PROINVERSION for the closure of the Amazon Central transaction. Notwithstanding the fact that the Infrastructure/PPP component was closed ahead of schedule, and having spent only about 52 percent of its original

> **" A very important benefit of PRA's work in facilitating the paving of the highway segment between Tarapoto and Yurimaguas and one that is rarely mentioned is the well-being and improved quality of life for the people using the new highway. Previously in this zone, the residents subsisted on wild fauna and subsistence cultivation of corn and yucca. Today as a result of the paved highway, they cultivate palm oil, which generates a much higher income for the people. "**
>
> **— GENARO SANCHEZ, GENERAL MANAGER, ASSOCIATION OF THE MUNICIPALITIES OF THE SAN MARTIN REGION**

budget, it achieved major results under challenging circumstances. This was a major accomplishment, particularly given the size and scope of at least two of the completed transactions. With the remaining time and budget, PRA might have completed at least two more major PPP transactions, including the Fernando Belaunde Terry highway or the rural electrification projects described above.

IMPACT ON PEOPLE

One of the main goals of the Infrastructure/PPP component was to help develop the safe, affordable, and efficient transport infrastructure and services that are pivotal for economic development. For decades, Peru's economic growth and competitiveness have been undermined and significantly hampered by high transportation costs and excessive travel times due to inadequate and poorly maintained roads and highly inefficient cargo-handling operations at sea and river ports because of antiquated port infrastructure. The result is continuing poverty, exclusion, and inequality in Peru for decades. The World Bank's Rural Transport Index (RTI), which measures the number of rural people who live within two kilometers (equivalent to a 20- to 25-minute walk) of an all-season road as a proportion of the total rural population, estimates that more than 57 percent of people living in rural areas in Peru do not have reliable transport access. Further, the lack of modern port infrastructure to handle the increase in container traffic — particularly in the Port of Callao, the country's main port — costs the trade community upwards of $330 million a year, limiting opportunities for trade and the competitiveness of Peruvian products.

In this context, improving the transport infrastructure and services for enterprises and for rural Peruvian men and women through PRA interventions was critical to provide physical access to markets, jobs, and social services, such as education and health; facilitate the inclusion of different ethnic and marginalized groups; improve competitiveness; and, ultimately, stimulate growth and alleviate poverty. Ultimately, all of these needs will be served once the projects are completed and operational. Nevertheless, as the sample of testimonials presented here illustrates, the effects of the initial infrastructure improvements are already being felt by the more than 6 million people living in the project's area of influence.

ECONOMIC IMPACT OF IMPROVED ROAD INFRASTRUCTURE

With the completion of the east-west Amazon North and Amazon Central Highway concessions and, subsequently, the north-south FBT highway, the central *Sierra* and *Selva* of Peru will be fully integrated into the Peruvian economy by all-weather highways for the first time. The completion of these highways will certainly lead to an economic boom in the San Martin and Ucayali Departments and others within the area of influence of these roads.

The three highways are part of the Initiative for the Integration of

BETTER ROADS LOWER SHIPPING COSTS

"Along the Tarapoto-Yurimaguas segment, travel times were reduced from 14 to 5 and a half or 6 hours … in a sport utility vehicle, the trip to Yurimaguas doesn't even take 2 hours. Initially, the cost of transporting a sack of rice went from Sol/12 to Sol/9. Since then, the price has stayed stable despite increased fuel prices. I think that is the most important impact: Transportation costs have not increased as in other regions. Without question, trucks wear better; spare parts, which used to be our headache, last longer; and maintenance costs less. Before, impassable roads could interrupt travel for several days. Now these slow-downs last just hours…"

— **Eduardo Torres, General Manager, MIA SAC cargo transport company**

UNPARALLELED POTENTIAL ECONOMIC IMPACT

The Amazon North concession's area of influence includes six departments with 24 percent of the country's population and 15 percent of its GDP; the Amazon Central's area of influence, on the other hand, includes five departments with close to 50 percent of the country's GDP.

Regional Infrastructure of South America (IIRSA). IIRSA seeks to promote the development of transport, energy and telecommunications infrastructure from a regional viewpoint, aimed at the physical integration of the twelve South American countries. The completion of the FBT and two IIRSA east-west corridors will finally and forever integrate the *Sierra* and *Selva* of central Peru into the national economy with all the promise that such integration holds for improving the income of millions of smallholders, many of whom now turn to coca as the only crop marketable from a region constrained by limited and poor infrastructure and extremely high transport costs.

These projects will significantly reduce transportation costs and travel time, improve the competitiveness of products and businesses in the area, and provide the foundation for viable alternatives to coca and for a competitive and licit business environment. Finally, both the Amazon North and Amazon Central highways are integral parts of the first truly multimodal corridors which connect, along two different routes, Peru with Brazil, the region's largest economy, for the first time.

The table below shows the estimated savings in transport costs for several segments of these roads.

AMAZON NORTH HIGHWAY: YURIMAGUAS-TARAPOTO (125 KILOMETERS)

	Before Concession	With Concession	Savings
Cargo			
Transport Time	12 hours	4 hours	(-70%)
Transport Cost	S/. 160/ton Ton/Km..= S/. 1.28	260 T/km= S/. 0.72	(-44%)
Passengers			
Transport Time	6 hours	3 hours	(-50%)
Transport Cost	S/. 25/passenger	S/. 13/passenger	(-48%)

AMAZON CENTRAL HIGHWAY: TINGO MARIA-AGUAYTIA (98 KM.)

	Before Concession	With Concession	Savings
Cargo			
Transport Time	6 hours	4 hours	(-33%)
Transport Cost	S/. 50/ton Ton/Km.: S/. 0.51	S/. 40/T T/km= S/. 0.41	(-20%)
Passengers			
Transport Time	3 hours	2 hours	(-33%)
Transport Cost	S/. 20/passenger	S/. 10/passenger	(-50%)

PORT OF CALLAO CONCESSION: WHAT WAS THE PAY-OFF?

- More than $400 million in foreign investment in a new container port
- Hundreds of millions of dollars of savings, each year, for Peruvian exporters and importers
- USAID spent less than $2 million but, by 2013, the benefits to Peru will exceed $2.1 billion

— James W. Fox, USAID Economic Growth Conference, October 18, 2007

PORT OF CALLAO CONCESSION: WHAT WAS THE PAY-OFF?

"We are deeply grateful to USAID/Peru for its incredibly valuable technical assistance. Today's success could not have been possible without the support from the beginning of the project. This support is especially commendable because it came when few believed in the success of a process that was as important as it was complicated….The technical assistance of USAID and PRA was the foundation of the entire process. They researched transaction design, competitiveness, demand, demand allocation, conditions, and regulatory designs; reviewed the installation and operation of the Port; and developed a financial conceptual model and risk matrix for the concession. All of this work was at the root of this successful concession…"

— Juan Suito, National Director of Concessions, MTC

ECONOMIC IMPACT OF IMPROVED PORT EFFICIENCY

An analysis of the potential economic consequences of improvements in the efficiency of the Port of Callao prepared by USAID in 2003 concluded that the excess cost of container shipments through the Port of Callao was approximately $790 per TEU. A subsequent independent evaluation of the Port of Callao concession sponsored by USAID and conducted by James Fox in early 2007 concluded that the adjusted annual benefit of more efficient port operations to Peru would be $377 million (at 2006 container traffic levels). Given the rapid growth of Peru's economy, excess costs of inefficient port operations could conceivably reach more than $500 million per year by 2010, just before the new container terminal is in full operation.

The main sources of excess costs are port charges for importing or exporting one TEU and delays in moving goods through the port, which are estimated to represent more than 60 percent of the current total excess cost of the port. This is likely to be an underestimate, for such delays surely reduce the amount of trade that moves through the port. Today, the Port of Callao moves more than 1 million TEUs per year. The benefits to the Peruvian economy of improved and efficient port operations could easily surpass $2 billion in the initial three years of operation.

Return on investment. PRA's Infrastructure/PPP component not only produced remarkable results but also provided USAID with an unusually high return on its investment. For every dollar spent in the Infrastructure/PPP component, PRA has leveraged $87 in initial private capital investments plus more than $103 in commitments to operate and maintained the infrastructure over the next 30 years

This represents an unprecedented rate of return on the investment USAID has made in its implementation contractor. The benefits in this estimate derive only from direct capital investments.

IMPACT ON PERU'S INFRASTRUCTURE CONCESSIONS PROGRAM

PRA gave new impetus to Peru's concessions in its infrastructure program and introduced a rigorous and methodical transaction design process that resulted in well-structured, bankable PPP transactions as well as transparent and robust competitive bidding processes. In the process, PRA helped build significant institutional capacity in its host-government counterparts. The support received from PRA allowed PROINVERSION to successfully close two major concession transactions; to lay the technical, financial, and legal groundwork for two more and to develop a PPP model appropriate for broader application, essential features of which already have been incorporated into the next generation of PPP concessions in Peru. Some of the unique elements developed or introduced by PRA included state-of-the-art concession con-

Toll on the Paita-Yurimaguas route on the Amazonas North Highway from the concession led by ProInversion with USAID's support.

tracts, ground-breaking financial engineering, and pioneering environmental management tools.

State-of-the-art concession contracts:

- A "second generation" concession contract, which incorporated industry-specific international best practices, innovative risk mitigation mechanisms, and significant improvements over similar PPP contracts for other concessions in Peru's transport sector, were developed for all concessions

- The Amazon North Highway concession contract was used by PROINVERSION as a model for concession transactions that require government subsidies (i.e., concessions that require PAO and PAMO payments).

- Innovative risk management mechanisms were developed specifically for road concessions, including periodic maintenance cost insurance to reduce volatility in periodic maintenance costs; clauses to protect the financiers in the event of early termination of the contract; and minimum revenue guarantee to minimize traffic risk in the Amazon Central concession project.

Ground-breaking financial engineering:

- Infrastructure bonds to finance both the Amazon North and

PRA PAVES THE WAY FOR IMPROVED CONCESSIONS PROGRAM

"USAID/Peru, through the PRA project, has contributed to the development of Peru's concessions program. The project introduced fundamental improvements in the financial aspects of the concessions, as well as transaction structures that had never been used in Peru - and that should help reduce the risk of future contract renegotiations...Among others, the project introduced to Peru a new concession structure applicable to projects that are not financially viable and require government subsidies, like the Amazon North Highway concession. This concession structure also incorporates innovative financial guarantees to improve the project's investment rating. On the legal/contractual side, there have also been important improvements. The concession contract developed for the Amazon North highway is completely different to the traditional concession contracts in the sense that it introduces a different mechanism to allocate risks. All of the innovations on the financial, technical, and contractual/legal aspects of concessions developed by PRA will remain with PROINVERSION and will be applied in similar concession process in the future..."

— Ximena Zavala, Director of Concessions, PROINVERSION

PRA

Amazon Central highway concessions were simulated and subsequently rated by Apoyo & Asociados/Fitch Ratings, a renowned credit rating agency, to assess the creditworthiness of the projects. The shadow ratings provided an independent opinion regarding the probability of default of the bonds and the allocation of risks and mitigation mechanisms.

- As a result, a $60 million PCG was designed and negotiated with the IDB to facilitate the financing of the $220 million-plus Amazon North Highway concession. This was the first financial guarantee granted by the public sector window of the IDB. The PCG not only allowed the concessionaire to obtain better financial terms, but will facilitate access to the international capital markets.

- A revolving $60 million bridge loan was designed and negotiated with the Andean Development Corporation (CAF) to ensure the prompt initiation of construction of the Tarapoto-Yurimaguas segment of the Amazon North Highway concession.

- PRA's financial structuring and credit enhancement mechanisms designed for the Amazon North Highway concession facilitated the issuance of a $214 million infrastructure bond by concessionaire IIRSA Norte in August 2006. The highly complex deal received *Project Finance Magazine's* 2006 Latin America Bond of the Year award.

Pioneering environmental management tools:

- The first-ever strategic environmental evaluation (SEE) for an infrastructure project in Peru was completed. The SEE for the Amazon North highway was designed to evaluate the corridor under an integrated, systematic, and comprehensive framework to ensure that it included a system for defining environmental responsibility for the operation and maintenance of the highway.

- Environmental impact assessments for each highway section were developed for the Amazon North and Amazon Central Highway concessions.

- A comprehensive and unprecedented set of environmental regulations and penalties for noncompliance was prepared and incorporated into the highway concession contracts.

- Public consultations along the Amazon North and Amazon Central corridors to disseminate the potential environmental impacts of the project and the corresponding mitigating measures were completed in most of the municipalities served by these two highways as well as in indigenous communities within their area of influence.

Textile work is among the most intensive for the female workforce. Pictured, a knitter from export firm Royal Knit in the Puno-Cusco Economic Corridor.

CHAPTER TWO

HOW DID PRA ACHIEVE ITS RESULTS? WHAT MAKES PRA DIFFERENT?

“ The campesino transitioned from being exploited to being overlooked. At the same time, cities have grown based on a population that has its own life. ”

—RICHARD WEBB, “CHAU MARX,” EL COMERCIO.

As its reputation for innovation and creativity attest, PRA differs from conventional development programs in a number of significant respects. For that reason, it is useful to trace PRA’s origins and historical evolution and to lay out the operational principles that have guided its work.

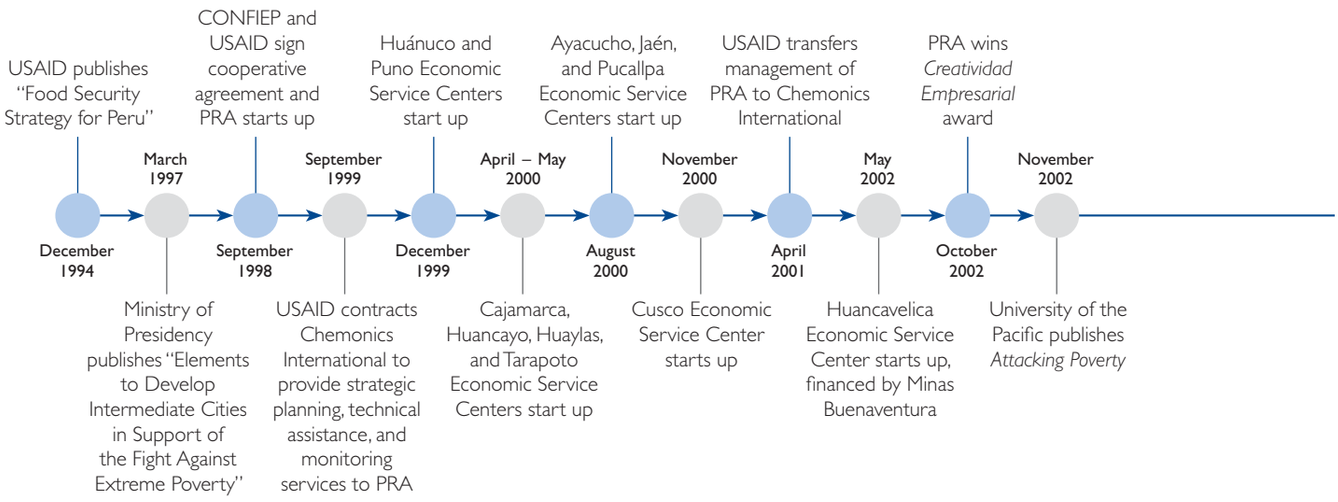
PRA’s roots go back to USAID’s 1994 Food Security Strategy for Peru. The strategy concluded that Peru’s food insecurity is, more than anything else, a question of poverty. It also described how, as a practical matter, poverty in Peru means lack of access to productive resources, markets, employment opportunities, and basic services, especially on the part of the poor and extremely poor in rural areas of the *Sierra* and *Selva*.

Over the next three years, USAID worked closely with the Ministry of the Presidency to develop and make operational a government anti-poverty strategy. Building on the food security strategy, the anti-poverty strategy argued for targeting public investment and services to intermediate cities that offer income and employment opportunities and where backward linkages with agriculture and rural enterprises could be effectively developed and strengthened. In 1997, the process culminated in the publication of “Elements to Develop Intermediate Cities in Support of the Fight Against Extreme Poverty,” which laid out the merits of linking poverty-stricken rural areas with lower-hierarchy cities and those in turn with higher-hierarchy cities in an “economic corridors” approach.

In considering how it might best support the government’s anti-poverty strategy, USAID came to two conclusions: that it made

PRA / IVANNA NARDUZZI DOCUMET

CHRONOLOGY OF KEY EVENTS: POVERTY REDUCTION AND ALLEVIATION PROGRAM



sense to focus on tapping the dynamism of the private sector to link poor people with markets; and that the National Confederation of Private Business Institutions (CONFIEP) would likely make the most congenial partner for that purpose. In late 1998, USAID and CONFIEP entered into a cooperative agreement to carry out PRA. Diagrammatically, the two parties laid out the development logic and programmatic coverage of their program.

The design of PRA posited four interconnecting conditions for achieving a permanent reduction in poverty — that is, for creating substantial numbers of income- and job-creating opportunities. Simultaneously, a fifth condition must prevail to alleviate extreme poverty in the short term: a social safety net must exist to underpin those unable to increase incomes or find jobs. The five conditions are:

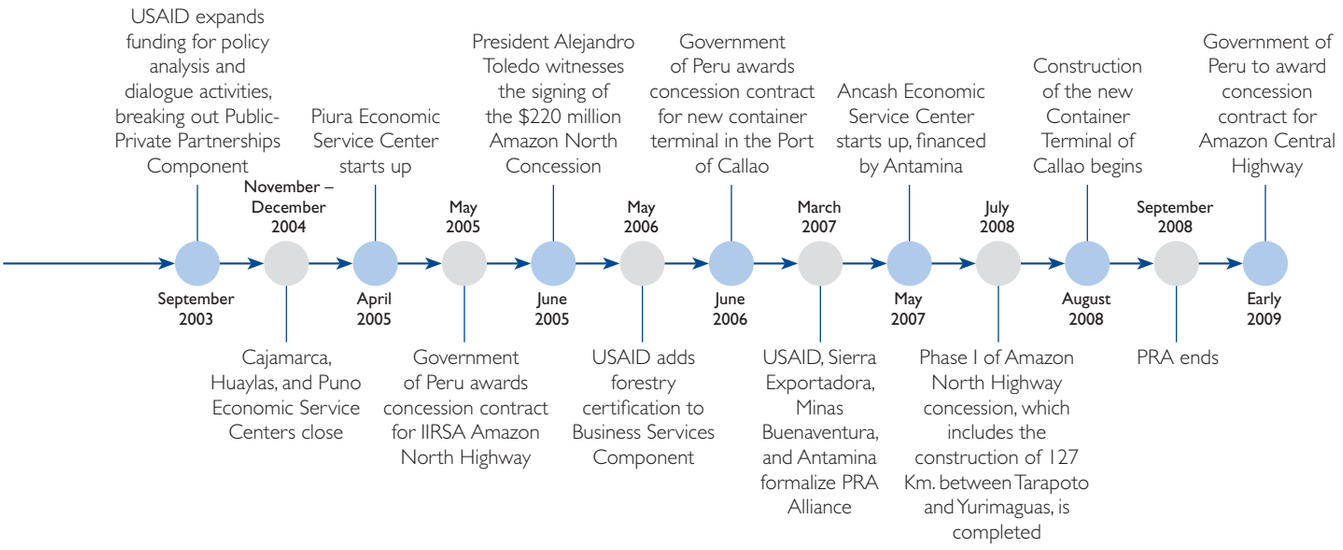
1. *The existence of a favorable investment climate*. Investors will not open or expand businesses if the policy environment is not propitious or if government investment is wasteful and unproductive.

2. *The availability at reasonable cost of know-how* to identify market opportunities and broker transactions.

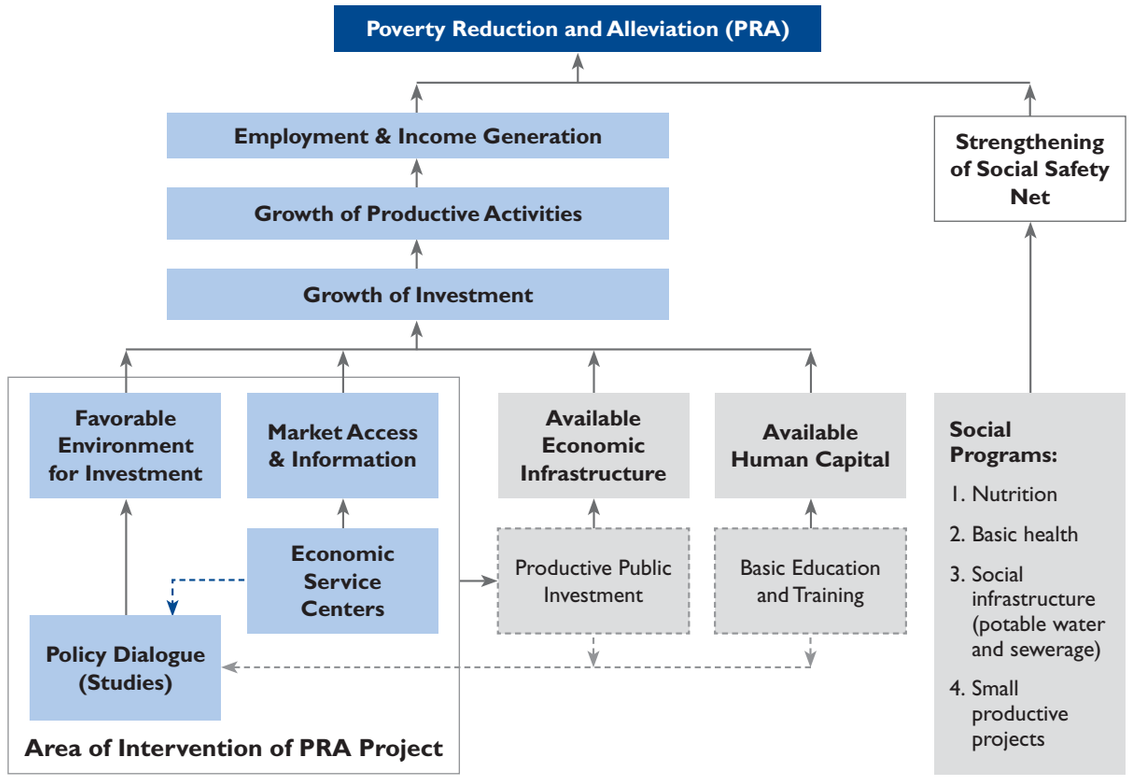
3. *The presence of reliable public infrastructure* — especially roads, electricity, and irrigation — that lowers high costs of doing business.

4. *Investment in human capital* — that is, in basic education, which lays the foundation for future learning, and in vocational training, which develops productive skills.

5. *The existence of a social safety net targeted to the extremely poor* who are unable to take



PRA STRATEGY



Processing plant for the APPBOSA association, a PRA client in the Piura-Tumbes Economic corridor.

PRA

advantage of the first four conditions for reducing poverty.

Available budget did not allow PRA to attack all five conditions at once or to work everywhere in the country. The designers of PRA had to make choices. The first choice was to restrict the scope of the program to cover the first two conditions. Specifically, they envisioned that PRA would finance policy analysis and dialogue activities and establish and operate ESCs in economic corridors in the interior of the country.

- *Policy analysis and dialogue*. Under this set of activities, PRA would identify and develop solutions to policy issues — including laws, norms, and regulations — focusing especially on those issues impinging on the growth of economic activity in the corridors where PRA would be working.

- *ESCs.* Under this set of activities, PRA would establish a physical presence in the economic corridors to carry out, in essence, four major functions:

1. Facilitating access to information on both domestic and foreign markets, technical and management assistance, financial services, legal protection, notary services, transport, insurance, and others, with the objective of lowering the costs of entry into markets and broadening the participation of local people in them

PRA supported small growers of organic bananas in Piura. PRA-initiated market linkages enable exports to the United States and Europe.

PRA

2. Acting as an aggressive broker of deals between foreign and domestic buyers and investors on one hand and local producers on the other

3. Identifying the need for policy studies and dialogue

4. Promoting mechanisms for coordination and problem-solving among key private- and public-sector entities in economic corridors at the regional level

PRA's designers anticipated that the work of the ESCs would absorb most of the program's budget. In fact, in their early years, the ESCs monopolized the budget; not until the inclusion of the Public-Private Partnerships component did PRA place major focus on policy issues.

PRA's designers had to establish both functional and geographic limits. In 1997, the government's anti-poverty strategy mapped all of Peru into 24 economic corridors. To set priorities among them, the anti-poverty strategy ranked each corridor by two criteria: its economic potential and its connection with extremely poor people. PRA decided to work in corridors that ranked highly for both measures. Ten corridors emerged:

- Ayacucho
- Cajamarca
- Cusco
- Huancayo
- Huánuco
- Huaylas
- Jaén
- Pucallpa
- Puno
- Tarapoto

The first addition to the initial 10 corridors came in 2002 with the decision of Minas Buenaventura

to finance an ESC in Huancavelica — the first public-private partnership anywhere in the world under USAID's then-new Global Development Alliance. In 2007, Antamina followed suit, investing in an ESC in Ancash. At the same time, Minas Buenaventura and Antamina, together with the government's *Sierra Exportadora* program, joined with USAID to formalize the PRA Alliance, signaling to the public at large that PRA is not just a USAID program, but one that both private and public sectors identify with and support.

The initial ten corridors did not remain stable over time. Midway through the life of the program, shifting budget priorities dictated that higher priority be given to alternative development zones — that is, areas making the transition from coca to licit economic activities. Beginning in 2003, activities intensified markedly in the alternative development portions of the economic corridors of Ayacucho, Huánuco, Tarapoto, and Pucallpa. In a parallel vein, in 2005 an ESC opened in Piura in to extend the program's reach closer to Peru's border with Ecuador. On the other side of the coin, budget shifts obliged PRA to close the ESCs in Cajamarca, Puno, and Huaylas in 2004.

After a couple of years of operation, PRA's office in Lima asked the ESCs to canvass their clients concerning the policy and institutional problems they considered most important. Overwhelmingly, government road policy — both national and local — surfaced as the highest policy and institutional reform priority. Eventually, PRA adopted a two-pronged attack. First, it allied itself with the Tocache Group, a broad cross-section of public officials, businesspeople, and nongovernmental organizations in the department of San Martín, to find a way to facilitate rehabilitation of the Fernando Belaunde Terry Highway. Eventually there was consensus that it would make economic sense for San Martín to relinquish tax exonerations it enjoyed at the time and earmark the resulting revenues for the highway. The notion gained traction and became law in mid-2005.

The second prong of attack took a broader look at the country's transportation problem, recognizing that current and projected government budgets — even when supplemented with infrastructure loans from the donor community — would not come close to meeting the country's requirements for the foreseeable future. Thinking outside the box, USAID amplified funding for PRA's policy dialogue and analysis activities, formalizing the Public-Private Partnerships component to explore the potential of concessions as a way to leverage capital investment in transportation by the private sector, both domestically and abroad. Working closely with PROINVERSION, the government's investment promotion agency, PRA helped convert the concept into reality. PRA provided "alpha-to-omega" technical assistance, advising the government from the onset of each project design through to transaction closure.

PRA

Members of the CACVRA cooperative association, a cacao exporter.

The assistance translated into two major concessions during the life of the program and a third that the government has scheduled to consummate shortly thereafter.

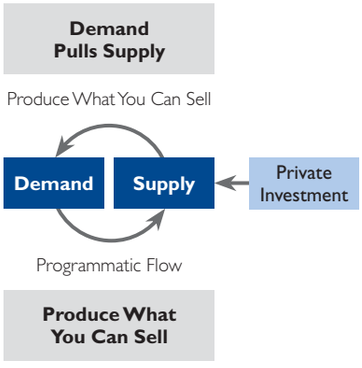
OPERATING PRINCIPLES OF PRA

Business Services Component

Five operating principles drive PRA's Business Services component:

Demand-driven. Recognizing that demand pulls supply is PRA's central operating principle, and the starting point for all — repeat, all — business support activities. PRA focuses on what clients can sell, not on what they have always produced. Moreover, demand is not abstract or statistical; it is represented by a buyer with a first name, last name, telephone number, and e-mail address.

Transaction-focused. PRA works not with products, sectors, clusters, or industries, but with clients — who may be buyers, processors or traders, or suppliers of goods or services. In most cases, they are processors or traders. Regardless, not only are clients specific entities, but the immediate objective of PRA's support is to help them consummate specific sales transactions. PRA's Business Services component does not "do projects"; it facilitates sales. A critical constraint on the development of the *Sierra* and *Selva* is the paucity of entrepreneurs and associated business enterprises. PRA therefore supports and nurtures the growth of business



entrepreneurship, transaction by transaction.

PRA does not attack all possible problems that can affect transactions. It zeroes in on the critical bottlenecks — clients' binding constraints. PRA and its clients prepare business plans that spell out how they will attack those constraints. Both parties sign the business plan before taking action.

Decentralized, outsourced implementation. Helping clients consummate transactions successfully depends on trust, which in turn depends on physical proximity between program and client. Accordingly, PRA works through geographically dispersed ESCs. Staff in the centers help buyers link with local enterprises and resolve the specific bottlenecks that constrain their sales growth. In PRA's experience, the principal challenge facing Peruvian enterprises operating in the interior of the country is organizing suppliers to meet buyers' requirements. Building trust and forging effective working linkages between business enterprises and small producers — especially farmers — have arguably been PRA's most important contributions.

PRA's implementation strategy is outsourcing, which takes place at two levels. First, USAID, the managing and funding donor, retains a private contractor to organize and supervise overall program implementation. Then the USAID-financed contractor manages activities in the program's economic corridors through competitively selected local for-profit or not-for-profit entities. The operator of each center is responsible for achieving key program results that are demonstrated through incremental client sales, incremental employment, and investment. This outsourcing arrangement has facilitated expeditious implementation of the program, including the ability to change either the prime contractor or center operators if they do not meet performance targets.

In Peru, the PRA model of outsourcing program management to private contractors stands almost alone among public sector-sponsored development programs, running counter to traditional, highly centralized ways of doing business.

Accountability for results and incentives to meet or exceed targets. PRA sets and holds itself accountable for sales targets. At the beginning of each year, PRA's office in Lima and its ESCs establish targets for the amounts by which the sales of the centers' clients will increase. If staff meet or exceed those sales targets, they receive performance bonuses and earn more money. The incentives bring coherence to the entire program by making it crystal clear to all exactly what the program intends to accomplish.

Serious and continuous performance monitoring. Monitoring and evaluation are an integral part of PRA operations, not an afterthought. PRA takes measurement of results — and the timeliness of that measurement

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Kantu Ceramics processing plant, a PRA client in the city of Cusco, whose product is sold throughout Peru.

— very seriously. Indeed, the incentive system can work only if accurate and current information on progress to date exists, both to report that progress and to flag and solve problems as they occur. It is also imperative to verify that results are attributable to program actions.

INFRASTRUCTURE/PPP COMPONENT

The PRA Infrastructure/PPP component has been guided by four important operating principles:

Utilize a multiple PPP programmatic approach. When the Infrastructure/PPP component was added to PRA, USAID appropriately avoided one-off, ad-hoc PPP transactions in favor of multiple-project PPP programs backed by multi-year, in-country technical assistance for both institutional development and turnkey PPP project packaging, from concept definition to financial closure. The design and implementation of multiple PPP transactions allowed PRA to achieve economies of scale, thus making better use of scarce technical assistance resources. In addition, PRA helped build significant institutional capacity in our host-government counterparts. In providing technical assistance in several PPP transactions that were under way simultaneously, PRA worked with PROINVERSION, the MTC, and others in a continuous stream of PPP project life-cycle activities. This is difficult to achieve with technical assistance for a single, one-off PPP project — the standard

The Port of Callao. PRA supported PROINVERSION in the concession of the South Container Terminal, which required an investment of $364 million during the first phase.

approach of multilateral development institutions. The PRA Infrastructure/PPP Component provided resources for the completion of four to six PPP transactions; today it is not hard to see the institutional impact of this work even though USAID had to cut back on funds enabling the completion of three major PPP transactions.

Provide "alpha-to-omega" technical assistance. Since the inception of the Infrastructure/PPP component, and to ensure comprehensive, professional, and transparent structuring of public-private partnerships, PRA advocated for the importance of providing transaction advisory services from the onset of each PPP project design to final contract award and signature. This turn-key approach was used in all concessions structured by PRA. Chemonics' experience in Indonesia, Colombia, the Philippines, South Africa — and now Peru — provides the empirical base that demonstrates the importance of turn-key, "alpha-to-omega" transaction advice for the successful closure of PPP infrastructure projects. PRA's beginning-to-end management of PPP engagements is based on our two-phase approach to PPP project design and the subsequent tendering and contract award process.

Encourage vigorous and transparent competition. Competition is perhaps the core underlying principle in PPP procurements. It is the only way to ensure success and best results from any PPP transaction. PPP does not always

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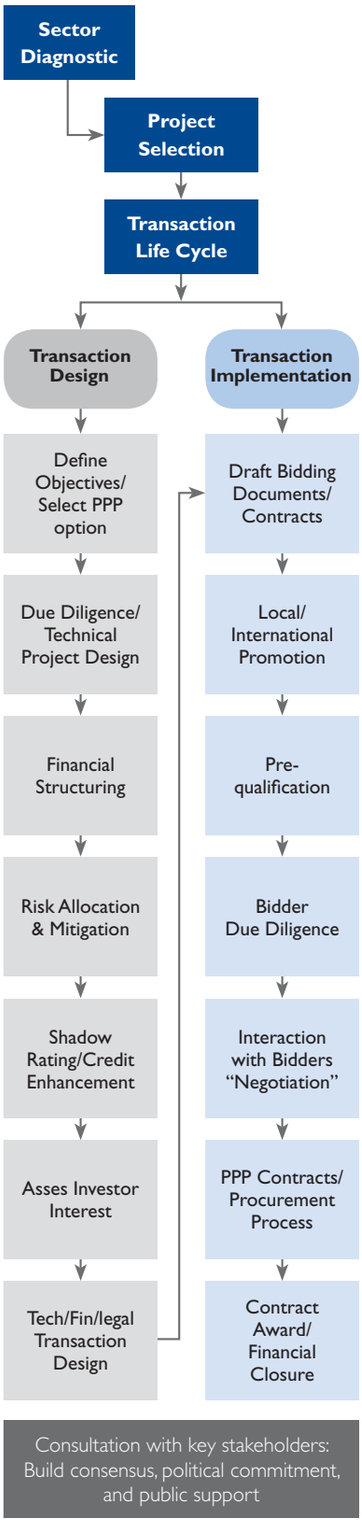
SCOPE OF PRA'S INFRASTRUCTURE/ PPP PROGRAM



guarantee lower prices or better services — competition does. Further, competition helps bring about efficiency, reduces price distortions, promotes greater accountability and transparency in business decisions, and leads to better corporate governance. PPP is still a relatively new process, and it is strongly opposed by some who do not trust the private sector to act in the public interest when placed in situations that are frequently monopolistic in nature. Thus, it is essential that the perception of absolute propriety be established and maintained. Competitive tendering and the efficient management of the tendering process are essential to ensure the highest quality of service provided at the lowest possible price. To foster transparency and generate the lowest-cost service to end users and the government, all PRA Infrastructure/PPP interventions were designed to encourage vigorous competition among infrastructure operators, developers, and investors, both domestic and international.

Implement a rigorous and methodical transaction design and implementation life-cycle process to produce well-structured, bankable PPP transactions. For each PPP transaction, PRA followed a systematic, two-phase transaction design and implementation process. The key elements of each phase of this methodical approach are discussed below.

PHASE I: TRANSACTION DESIGN

Preparation of the technical, financial, economic, institutional and legal framework for each PPP transaction.

Due diligence. PRA collected, consolidated in a single location, and analyzed all available engineering studies, traffic/cargo projections, reports, plans, and other relevant documents for use in the transaction design of each project. The information collected, as well as reports and studies developed in the course of the transaction design phase, were subsequently organized in a project data room that was used by potential bidders to prepare their proposals.

Socioeconomic evaluation. Cost-benefit analyses were conducted in accordance with the methodology used by the MTC for interurban road infrastructure projects. These studies were carried out in conformity with the requirements set forth in the regulations of the National Public Investment System (SNIP).

Technical project design.

- Engineering studies were reviewed to determine the technical viability of the proposed projects and the amount of initial capital investment required to achieve realistic levels of service, in accordance with traffic/cargo levels, during the concession period. For the port, in addition to the engineering review, PRA developed a comprehensive layout of the basic design for the new container terminal, demarcating the physical boundaries for the PPP project.

- The functional and structural characteristics and conditions of the roads were evaluated and the operation and maintenance costs were calculated using modern road evaluation and engineering planning tools. These included HDM-4 and online-GPS-GIS-multimedia road and bridge inventory and condition assessment systems.

- Maintenance and operation procedures, as well as procedures for monitoring the performance of the concessionaire, were developed. These incorporated industry-specific international best practices. This was the first time these procedures were implemented in a concession contract in Peru. For the port, PRA prepared minimum technical requirements for the bidding process and standards of service that the concessionaire was required to observe.

- Demand studies to project the traffic/cargo (and therefore revenues) over the life of each project were carried out for all road concessions. A similar study projecting the demand for port services and container and cargo traffic as well as sensitivity to improvements in the quality and the pricing of port services was also prepared for the Port of Callao. These studies were crucial in view of the fact that the financing for both the Amazon Central Highway and the port concessions is based solely on projected traffic and the collection of tolls and cargo handling fees.

Environmental impact assessment. PRA developed environmental management tools to ensure that all environmental protection requirements of the government of Peru as well as USAID Section 216 requirements were met for both the Amazon North and Amazon Central concessions.

Financial structuring.

- *Financial modeling*. Using state-of-the-art financial and economic analysis models developed and tailored specifically to the particular requirements of the projects, PRA prepared financial projections to establish the economic and financial viability of the proposed concession projects. The projections covered the expected life of the concession, and the models determined the return on investment, net present value, debt service coverage ratios, and other indicators under different scenarios. They also described the required level of revenues (and/or government subsidies) required through the life of the project to permit the operator/concessionaire to undertake the capital investment program to operate and maintain the facilities, service its debt, maintain adequate levels of debt service coverage ratios, and provide equity investors with their required returns.

- *Analysis of the domestic capital market and of the need for credit enhancements*. In our view, obtaining long-term financing in the domestic capital market

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A segment of the IIRSA Amazon North Highway concessioned in May 2005 with the support of PRA's Infrastructure/PPP component.

was crucial to the financial viability of the infrastructure PPP projects in Peru. Peruvian institutional investors (mainly pension funds and insurance companies) could offer longer terms in accordance with the development of the project; this type of financing could also reduce the exchange risk because the project generates income in local currency and also potentially reduce the cost of capital. A careful evaluation of the requirements for procuring financing for the projects in the Peruvian capital market, including the need to receive credit enhancements available through loan guarantees offered by multilateral and bilateral lending agencies, was conducted to ensure the PPP projects were designed to tap the financial resources potentially available from domestic sources.

- *Simulation of long-term financing and shadow rating*. To ensure the viability of long-term financing for both highway concessions, PRA simulated the issuance of infrastructure bonds in the local capital markets. These simulated bond issues were subsequently evaluated by the credit rating agency Apoyo & Asociados, an affiliate of Fitch Ratings, and given a shadow rating. The shadow rating process helped identify risks and credit enhancement mechanisms needed to raise the debt rating to a level acceptable to the local capital market players.

- *Credit enhancement mechanisms. Based on the financial structure and risk analysis, PRA designed effective and innovative credit enhancement mechanisms*. In the case of the Amazon North Highway concession, PRA designed and structured, with the IDB, a partial credit guarantee to cover the commitments of the Republic of Peru in the performance of the annual payments for works (PAO). For the Amazon Central highway and the Port of Callao, a complex minimum revenue guaranty mechanisms was designed and implemented.

Risk analysis, allocation, and mitigation. Based on the proposed PPP structure, PRA prepared a comprehensive risk analysis, allocating responsibility of the main financial, commercial, operational, engineering, construction, and other risks associated with the implementation of the concession projects to a specific party and establishing how the consequences of any project failure would be delegated among the participants in the project. Risk is normally allocated through the transaction documents (e.g., the concession contract). The key objective of risk allocation is to build a foundation for the success of the project by achieving the most efficient allocation of risk among the parties and thereby obtaining the most efficient financial structure that provides the lowest possible cost to the project for the risk undertaken.

Transaction design and PPP business model. Based on the results of these studies, the PRA PPP team prepared and finalized the complete technical, financial, and legal business and transaction design model for each transaction

PHASE II: TRANSACTION IMPLEMENTATION

Managing the competitive transaction process from promotion to contract award and financial closure.

Organization of the data room. All existing information and documentation pertaining to the projects was gathered and organized in a data room located in PROINVERSION that was available to all prequalified bidders.

Preparation of bid documents.

- *Investment brochures* This promotional document provided all the basic information that potential bidders needed in making a preliminary assessment of the projects. The investment brochure included a clear and concise description of the project, procurement process, and bid schedule.

- *Bases*. A complete Request for Proposal package included the bidding rules and evaluation criteria to award the concession contracts following Peruvian laws and regulations. It set out the form in which bids were to be submitted and the way in which the winning bidder would be selected.

- *Concession contract*. Probably the most important transaction document, the concession contract reflected the details

of the technical, financial, and legal transaction design. The contract also set forth the basic obligations of all parties to the agreement. The purpose of the contract was to provide the legal structure for the development of the projects and to define the rights and obligations of the public and private parties with respect to the operation, construction, maintenance, financing, and expansion of the projects, as well as the allocation among the parties of the risks and rewards generated by the projects.

National and international project promotion. PRA conducted an aggressive local and international project promotion campaign to ensure robust competition. The promotion efforts included the publication and distribution of promotional brochures (teaser) to a database of more than 100 firms worldwide; direct contacts with more than 40 firms in the region; and investment road shows with the participation of high-level government officials in Santiago, Bogotá, Rio de Janeiro, Sao Paulo, Paris, and Mexico.

Interaction with prequalified bidders during tender process. As is characteristic in such processes, interaction with bidders was intense and constant during the proposal preparation process. This interaction was critically important to provide potential bidders with the opportunity to suggest improvements to the transaction structure and request amendments to the contractual documentation in a transparent manner. It was only at this stage, when potential bidders with a firm interest in the transaction had the opportunity to carefully analyze the details of the project, that we received substantive comments and suggestions.

Evaluation of bids and contract award. PRA assisted PROINVERSION in reviewing and evaluating the technical proposals.

Kiwicha producer in the district of San Salvador in Cusco, a supplier to the exporting company Green Hill Foods.

CHAPTER THREE

WHAT WORKED AND DID NOT WORK? WHAT LESSONS HAS PRA LEARNED?

Over the last decade, PRA has learned many lessons — not only about what to do to bring about results but, perhaps even more importantly, about what not to do. PRA has learned many of those lessons the hard way, that is, by carrying out activities it thought would work, and finding out they did not. Indeed, many of the lessons run counter to conventional development wisdom and practice. For that reason, it is important to document them here.

The pages that follow summarize the most important lessons, often with illustrative examples.

> **" PRA keeps projects simple and focused on making the deal, which is a cornerstone of its success. "**
>
> **—PRA FINAL EVALUATION**

BUSINESS SERVICES COMPONENT: LESSONS LEARNED

The more a development program focuses squarely on higher-order results like sales and jobs and treats all program activities as means to those ends, the more it mirrors its clients' objectives and the more coherent and effective it will be. Many development programs set myriad objectives, often without prioritizing them. As an operational matter, PRA set itself only three objectives: new sales, new jobs, and investment. That design decision not only gave the entire program focus; it also resonated with PRA's clients. Increasing sales is an objective that processors, traders, and their suppliers not only identify with but embrace. Having all its personnel focused on increasing sales put PRA on the same wavelength with those whom it set out to serve.

Each year, like most development programs, both PRA as a whole and its constituent ESCs prepared annual operating plans. Unlike the plans of most programs, PRA's did not spell out beforehand the different business support and technical assistance activities the program would pro-

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vide. Rather, the plans laid out a framework for action, establishing the targets — new sales targets, particularly — that the program proposed to meet and outlining a set of indicative — not prescriptive — activities to meet those targets. In short, PRA made increasing sales its North Star, viewing everything else as a means to that end. PRA found it made sense to come not as a solution looking for problems but as a problem-solver, adapting what it did to the specific problems it encountered along the way.

The place where one finds a problem is not necessarily the place to attack it. If the proposition that it makes sense to "produce what you can sell" is true, then helping poor producers starts with those who might buy what the poor can produce. But buyers and sellers may not reside near one another. Two examples from PRA make the point.

When PRA started, Peru imported most of its potato chips from Colombia. To better the livelihood of poor potato farmers in Huánuco, PRA started not with the farmers themselves, but with Frito-Lay, whose Peruvian processing facilities are in Lima. Frito-Lay expressed interest in helping farmers in Huánuco shift from traditional varieties to industrial-grade potatoes and signing forward contracts with them. With PRA's assistance, Frito-Lay has purchased more than $1.6 million worth of Huánuco potatoes. Today, Frito-Lay exports potato chips marked "Made in Peru with Pride" to Colombia, Ecuador, and other countries.

For years, Peruvian jewelry manufacturers imported gold from abroad even though Peru produces gold itself. ARIN, a jewelry manufacturer and exporter with facilities in Lima, was eager to find a way to buy gold locally and make itself more competitive. PRA's ESC in Cajamarca agreed to help on the condition that ARIN set up operations near the source of much of Peru's gold, the mines operated by Yanacocha in Cajamarca. ARIN agreed. Gradually, the alliance of ARIN, Yanacocha, two certifying banks, and PRA worked out a way for jewelry manufacturers to source gold locally under Peruvian law. Supreme Decree 105-2002-EF ratified the arrangement, ARIN opened a gold chain manufacturing facility in Cajamarca, and PRA helped train local women to work for ARIN. The operation was highly successful in generating employment for poor women in the Cajamarca economic corridor — but none of this would have occurred if the actors had not searched for a solution far from Cajamarca.

Demand really does drive supply. In the *Selva* near Aguaytía lies a banana-growing area. To sell more easily, the growers organized themselves into five associations. Buyers of bananas came to the area irregularly; when they did, the five associations were quick to pressure the buyers to purchase from them. With effective demand so small, many of the bananas grown went unsold,

" When it comes to finding a better job for this poor farmer, the question is: Is there someone out there who wants or might want to buy something that this poor farmer is or could be producing? "

—CHARLES PATTERSON, STRATEGIES FOR INTERNATIONAL DEVELOPMENT

PRA

PRA-supported businesses in alternative development zones achieved increased sales of $51 million. Pictured is a banana producer of the COPPU consortium in Aguaytia.

and the rivalry among the five associations became violent.

In 2004, PRA facilitated the visit of a buyer from Santa Isabel to the area. At the time, Santa Isabel (now Peruvian) Supermarkets was one of two major supermarket chains in the country. At a meeting with the five associations, the buyer explained that Santa Isabel was willing to provide technical assistance and to purchase all the bananas they could produce, but that it would not deal with the five associations separately. He told them, "We are going to have just one bar code, not five. If you want us to buy from you, work it out." Almost instantly, the bitterest of enemies became good friends.

With assistance from PRA's Pucallpa ESC, the five associations formed a consortium of associations, COPPU, that has since sold not only to Santa Isabel but to national and provincial wholesale markets as well. Later, Frito-Lay looked to COPPU for raw material for the banana chips it now manufactures in Peru.

The dramatic about-face of the banana growers shows how powerfully market demand can drive producer behavior. In the end, market incentives talk, and talk loudly.

Operationally, demand means buyers with first names and last names. Early on, PRA conducted a number of conventional market studies that did not amount to much. The experience taught PRA an important lesson: operationally, demand means buyers — not studies, general trends, or statistics.

The east-west stretch linking Cusco, Abancay, and Andahuaylas is fertile ground for the production of amaranth, a grain indigenous to Peru that is rich in protein and amino acids. The government, donors, and nongovernmental organizations have promoted the expansion of amaranth without marked success until recent years. In 2003-04, PRA took a different approach, bringing a number of amaranth exporters to the zone. In recent years, the principal exporter has been Sierra y Selva, a trading company with established buyers in Europe. Sierra y Selva guarantees that it will pay a set price for what the farmers produce. That incentive elicited a strong response. From 2004 to 2008, amaranth production grew from 40 to 95 hectares in San Salvador and Písac and from 20 to 270 hectares in Andahuaylas. From 2006 to 2008, amaranth production expanded from 8 to 65 hectares in Mollepata.

The "Amaranth Road" may not have the same cachet as Asia's Silk Road, but its recent growth has been impressive. The key has been the entry of specific buyers to the zone.

Demand means willingness and ability to pay, not interest or need. Some development programs use the words *demand*, *interest*, and *need* interchangeably. Strictly speaking, though, there is a great difference between *demand* and the other terms.

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Pineapples were a profitable alternative in coca-growing regions such as Tingo Maria. Pictured, a small supplier to the Rolando Chambergo company.

Under the Alternative Development program, a number of pineapple-producing communities in Aguaytía signed agreements to eradicate their coca. In negotiating the agreements, the producers "demanded" that the program plant an additional 80 hectares of smooth cayenne pineapple, presumably to satisfy the market.

In fact, the market for smooth cayenne pineapple is very much a niche market — and, at the time, was limited largely to supermarkets in Lima. As PRA talked to those supermarkets, it became clear that they were ready and willing to buy smooth cayenne pineapple only in much smaller quantities than what 80 additional hectares would yield. If the communities added more than 11.5 hectares, in fact, there was a real danger that the market would be flooded and sales prices pushed substantially downward, thereby jeopardizing the very people whom the expansion of hectares was meant to benefit.

The farmers in the coca-eradicating communities undoubtedly thought that adding 80 hectares of smooth cayenne pineapple made good economic sense, but their "demand" did not meet the market test. From this case and many others, PRA has learned to distinguish clearly between *demand* and *need* or *interest*. A potential client's request for some kind of support from a development program is not demand. A buyer disposed to purchase a good or service in a certain quantity, of a certain quality, at

"PRA's major service . . . has been the key information it has given us about the zones where we wanted to go and, especially, helping us have a positive relationship with the local communities in the high Andes. PRA has been our strategic partner in developing businesses in the poorest zones of the country."

— Joaquín de la Piedra,
General Manager of Piscifactoría de los Andes

a certain time, is. Even though reacting to the perceived needs or interests of potential clients may be a good thing to do in some circumstances, it is not demand-driven development.

Look for demand in the private — not the public — sector. In principal, public-sector agencies can be just as much a source of demand just as private parties. In practice, the demand of public-sector agencies can be erratic and insecure. All other things being equal, it is better to look to buyers in the private sector for medium- and long-term sales growth.

OLAMSA is a producer of African palm oil in the Pucallpa economic corridor that commenced operations in 1998 with financial support from the United Nations. In its early years, OLAMSA experienced limited and unstable relationships with buyers, both private and public. In addition, it suffered from an insufficient supply of raw materials — palm — relative to potential demand.

Over the years, PRA has helped OLAMSA resolve both problems. One of OLAMSA's first clients was Peru's National Food Assistance program (PRONAA) — a useful client, but one that both OLAMSA and PRA understood would not form the foundation on which OLAMSA could build its future growth. With PRA's assistance, OLAMSA adopted a strategy of expanding, diversifying, and consolidating commercial relationships with private-sector clients. That strategy paid off. Today OLAMSA's principal clients include companies such as ALICORP, INDUSTRIAS ALPAMAYO, CONSORCIO AREQUIPA, and AMERAL. As a result, OLAMSA has experienced significant growth in sales. New sales attributable to PRA support came to $556,000 in 2002; in 2007, they totaled $3.9 million.

Building trust is more important than providing technical assistance. When outside observers ask PRA clients what has been the most important service PRA has provided, the answer almost invariably revolves around trust. They appreciate PRA's help in identifying new buyers, bringing in modern technology, and improving their management. But they are most grateful for the *acompañamiento* the program has offered — the ready access to an independent third party willing to serve as a sounding board for testing ideas, as a source of objective advice and encouragement, and, perhaps most importantly, as a bridge to help them create harmonious relationships with

PRA

USAID-support through PRA and Minas Buenaventura supported the categorization of alpaca fibers in Huancavelica.

suppliers. All of these help create the trust that is fundamental to effective communication and lasting, productive relationships.

Helping ensure that both sides comply with the terms of buyer-seller contracts has been particularly important. The mid-term evaluation of PRA expressed the point this way:

"What is most lacking to the successful forging of the marketing link along the value chain is trust between the parties to a deal. The long history of mutual deception between buyer and seller has left an attitude of mutual distrust that is extremely difficult to overcome. In fact, the evidence of this investigation suggests that the role of the ESC advisor as a 'moral guarantor' of the performance of the parties to a deal is as important as any technical or informational input."

And the final evaluation said:

"Perhaps the most important service of PRA is to build confidence between buyers and sellers who are small producers. There is a vast difference between city center buyers and small rural producers, which prevents a satisfying business experience for either party. To address this challenge, PRA personnel bring specific product requests, accompanied by product standards and prices to the producers, and then help the producers respond to the request. While planting new crops or improving their production techniques for existing crops, producers are preparing for a sale,

PRA CLIENTS SOURCING FROM THE LARGEST NUMBERS OF SMALL SUPPLIERS, 2008

Client	Product(s)	Economic Corridor(s)	Small Suppliers
CECOVASA	Coffee	Cusco-Puno	4,592
Rainforest Trading SAC	Coffee	Jaén	2,562
Romero Trading S.A.	Cotton, cacao	Tarapoto, Huancayo	1,607
Trasformadora Agrícola SAC	Tara	Cajamarca	1,598
CECOALP	Alpaca fiber	Cusco-Puno	1,500
Consorcio de Cooperativas Agrarias Cafeteleras CACVRA Quinacho	Cacao, coffee	Ayacucho (VRAE)	1,498
Agro Export Cajamarca S.A.C	Tara	Cajamarca	1,235
Gloria S.A.	Milk	Huancayo	1,136
ACOPAGRO	Cacao	Tarapoto	1,013
DEPRONAR	Tara	Huánuco	897
Federación de Asociaciones de Productores Agropecuarios Acobamba (FAPAA)	Peas	Huancavelica	863
ALISUR SAC	Beans	Cusco, Piura	784
Machu Pichu Coffe Trading S.A.C	Beans	Ayacucho	736
Cacao VRAE S.A.	Cacao	Ayacucho (VRAE)	707
Tomás Peña	Beans	Piura	622

motivating producers more effectively than just being trained."

Encouraging processors and traders — particularly mid-sized processing firms — to contract with small suppliers can have a sizeable impact on employment. As it concludes, PRA has 222 active clients sourcing from an estimated 42,498 small suppliers.

The top 15 clients generating linkages backward to small suppliers are all processors or traders of agricultural or livestock products.

The degree to which a large or medium-sized firm commits to its suppliers has much to do with the success of technology transfer to small producers and micro-enterprises. Many poor producers do not have the technical know-how to produce competitively what the market demands. In PRA's experience, the best incentive for poor people to adopt new technological practices is the existence of a specific buyer with a specific demand and a commitment to the supply side of the equation — the transfer of technology to suppliers to produce to market requirements. Many of PRA's clients meet these criteria: for example, Piscifactoría de los Andes, with a network of trout suppliers throughout the country; AGROMANTARO, with suppliers of artichokes in the Mantaro Valley; Romero Trading, with a network of organic cacao producers in San Martín; and Avena Don Lucho, with industrial oat farmers in Ayacucho. In each case, the company not only committed to

PRA

The Rainforest Trading plant in Bagua Grande, Amazonas employs many female workers.

buy at a minimum price; it also collaborated in the transfer of an appropriate technological package, supervised the quality of the product, assigned its best technicians to advise producers, and invested in inputs and equipment with the producers themselves. In and of itself, no development project — whether sponsored by the government, a donor, or a nongovernmental organization — can replicate the incentives that the market and its economic agents bring to real transactions.

Ultimately, the key for business to increase and multiply in the *Sierra* and *Selva* — and for the effective transfer of technology to poor people there — is the presence of entrepreneurial "glue" that connects the demand of final markets and small local suppliers and brings dynamism and cohesiveness to the entire market-small producer chain. Whereas for many in Peru development revolves around identifying "star products," for PRA it revolves around identifying "star connector firms."

Star connector firms are critical, and not only in agriculture. Royal Knit specializes in the export of alpaca sweaters and accessories. To sell abroad, it participates regularly in fairs; visits potential clients; and stays abreast of trends in styles, colors, and sizing. It also has invested in a product development department. Like most companies of its kind, Royal Knit always welcomes new buyers, but a key constraint over the years has been the absence of a critical mass of

Avocado businesses in the Ayacucho Economic Corridor achieved increased sales of more than $1 million.

PRA

suppliers with the skills to knit sweaters in accordance with the requirements of exacting buyers such as Peruvian Connection. With PRA's assistance, Royal Knit has gradually solved that problem by training more workers in Puno in finishing and quality control. The company can now call on 250 people — mostly women — as needed. Some of the women have become skilled enough to train others, thereby multiplying the effect of PRA's assistance and redounding to the benefit not only of Royal Knit but of other exporters as well.

Introducing high-value agricultural products in new zones normally makes sense only when large and medium-sized companies take responsibility for validating technological packages and when serious medium-sized farmers are involved. Introducing high-value agricultural products in new zones carries special risks. PRA has learned that it is best if a well-capitalized client validates the proposed technology. Moreover, if production costs are high, it is better for the client to first transfer that technology to farmers — normally, medium-sized farmers — whose income is diversified enough to absorb losses if everything does not go as planned.

Spineless artichokes are new to Ayacucho, where production began in 2006. Nutreina first rented land that it planned to manage itself, and it also helped finance the input costs of an association of small farmers that wanted to join the operation. Most of those farmers were used

With a $1 million investment, the SEM PERU company promoted production of yellow corn to small growers in the Pucallpa Economic Corridor.

PRA

to growing traditional varieties of potatoes, which require far less attention and technical know-how than artichoke production does. Most obtained poor yields from their artichokes, and Nutreina had to assume the loss.

Learning from Nutreina's experience, AiB rented 73 hectares of land in 2007 to manage. AiB compared yields produced with cuttings and seedlings, experimented with different planting densities, and conducted soil and water analyses to identify best practices. PRA bore a portion of the technical assistance costs and, perhaps most importantly, helped ease AiB's entry into an area that was highly suspicious of outsiders.

A year later, local farmers are seeing for themselves that they can grow artichokes successfully in the area; that artichokes generate farm income more or less continuously over a two-year period; that they provide employment for the community; and that artichokes are profitable enough for those in charge to pay good wages with full social benefits. As a result, a number of medium-sized farmers have asked AiB not only for technical assistance but to assign technicians to supervise production on their own holdings. AiB has agreed and is giving the farmers cuttings to get them started.

In 2008, AiB is expanding to 150 hectares. It currently transports its raw harvest to its Chincha headquarters on the coast for processing. As local production increases, AiB plans to construct a preprocessing plant in Hua-

With support from three private companies, organic cotton production provided alternative income for the coca-growing regions of Ucayali and San Martin. Cumulative sales reached $7.4 million.

PRA

manga, thereby adding more value in the economic corridor of Ayacucho.

The more a program focuses on and tailors its solution to a client's key problem, the more effective it will be. Many development programs offer training to their clients in both general business skills and technical fields. PRA has found that this approach often fails to bring to light the binding constraints that prevent businesses from growing. Therefore, PRA has avoided one-size-fits-all training, instead providing targeted assistance to solve bottlenecks that impede progress for specific clients.

Vivero Los Incas exports flowers and foliage. A few years ago, when its operation in La Merced had problems which affected its profitability, PRA engaged a consultant to get to the root of the problem. The consultant learned that Vivero los Incas was cultivating varieties inappropriate to the area's soil, identified a disease attacking its plants, and concluded that the firm's indiscriminate use of chemical inputs did not contribute to productivity increases. The consultant recommended that Vivero los Incas shift varieties, adopt more efficient soil treatment techniques, reduce the use of chemicals, and convert waste to compost with a chipping machine. With this targeted assistance, Vivero Los Incas became profitable and continued in business in the area.

One of PRA's early clients was Tutti Fruti, a small ice cream

More than 12,000 PRA-supported small suppliers with 20 private enterprises and cooperatives exported certified coffee, including organic-certified, to Starbucks and other U.S. and European clients.

PRA

business in the city of Jaén. Although the owner was anxious to expand, he realized he could not increase his market share significantly without improving the quality of his popsicles. After scouring the market for sources of qualified expertise, PRA identified an ex-Nestlé technician whose specialty was popsicle production. During two weeks in Jaén, the technician discussed appropriate equipment and popsicle production processes with the owner. At the end of the consultancy, the owner purchased the equipment, applied the processes, and opened a subsidiary in the neighboring city of Bagua and another in Loja, Ecuador. Tutti Fruti's expansion did not require general courses in ice cream production; it needed specific advice to improve the quality of its popsicles.

Opening new markets is expensive. For the most part, PRA's most effective technical assistance solved specific supply problems — but only after a buyer was in place. PRA's experience suggests strongly that attacking the specific supply problems that stand in the way of consummating sales transactions is much more cost-effective than attempting to open new markets.

About 95 percent of local consultancies financed by PRA have addressed supply bottlenecks — for example, agronomic questions in agriculture, design issues for garments, and pond management practices for raising trout. In each case, a buyer was prepared to purchase products, and the objective of the consultancy was to satisfy the buyer's requirements. The buyer's presence normally

helped ensure that PRA obtained a relatively rapid and high return on each dollar it invested. Many of PRA's principal clients have received such support — Agrosinor, La Granja Orihuela, Moliselva, OLAMSA, and Piscifactoría de los Andes, for example.

PRA's international consultancies have both solved supply problems and looked for new markets. In 2001, AICACOLOR constructed a bixin processing plant in Quillabamba to add value to the annatto it received from small producers in the surrounding area. In 2002, PRA brought in an international bixin expert to advise AICACOLOR on appropriate concentrations and how to produce them. As AICACOLOR's management put it, the consultancy "opened our eyes." As a result, AICACOLOR has expanded its sales — by $3.9 million to date — and significantly increased the number of producers from which it sources.

Consultancies have had less success in identifying new markets. For example, a PRA consultant arranged for the president of Quinoa Corporation to visit Peru in 2001; after visiting the Puno economic corridor, he decided to test the red pasankalla variety of quinoa in the U.S. food service industry and ordered 72 metric tons. Because that variety was close to extinction, it took a number of years for the local processor, El Altiplano SAC, to fill the order, and demand has been sporadic since that time.

PRA learned two important lessons as it attempted to open new markets. First, developing a market — particularly abroad — is costly. For a development program even to consider lending support, it must partner with an organization that has the financial depth and organizational strength to take on such a challenge. Second, the process itself takes time, which raises the opportunity cost of supporting market development. More than that, some goods and services — handicrafts, for example — call for continuity of funding to finance attendance at fairs, client visits, and other costs to keep abreast of market trends and stay afloat in evolving markets. Many small producers cannot make such long-term commitments.

The best point of entry is the individual business, not sectors or products. Preselecting sectors creates high opportunity costs. Most designers of development programs accept the principle that it is the job of market forces to pick the "winners" and separate the wheat from the chaff. To give focus to what they do, however, many programs restrict themselves to certain products, sectors, or clusters. As a result, they may incur high opportunity costs by discarding a range of options without sufficient thought.

If the designers of PRA had had to select beforehand the products it would support, they would likely have chosen coffee, rice, and, possibly, milk, poultry, and trout. Ten years ago, they would have been unlikely to select bixin, ceramic tile, flowers, fruits, palm oil, processed fruits, tara, or certified wood, the products of

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PRODUCTS OF PRA'S 15 CLIENTS WITH THE HIGHEST INCREMENTAL SALES

Client	Product
1	Trout
2	Palm oil
3	Flowers
4	Rice
5	Rice
6	Ceramic tiles
7	Poultry
8	Milk
9	Tara
10	Coffee
11	Wood
12	Bixin
13	Fruits
14	Certified wood
15	Processed fruits

Hand selecting caupi beans for export requires a large female workforce. Pictured, workers with the Enterprise of Tomas Pena in Pirua.

more than half of PRA's top 15 clients.

In retrospect, there is little doubt that the program's decision to organize geographically — and to be open to working with a variety of products — was indeed wise.

Working transaction by transaction can scale up, create "clusters," and lead to transformational development. Many development programs shy away from working with individual clients, believing this approach will result in only isolated successes rather than transforming local economies. Many examples of PRA's work call that reasoning into question — for example, the dramatic expansion of artichoke production in Huancayo, corn in Pucallpa, industrial potatoes in Huánuco, tara in Cajamarca, and trout in Puno, to name a few. Not every instance of one-on-one support has had transformational effects. Nonetheless, under the right circumstances (particularly buoyant markets), when PRA helps individual businesses grow, the results can contribute to a total effect much larger than the sum of its parts.

PRA's experience in helping bean clients in Piura shows how working firm by firm can lead to much broader growth.

Since 2005, PRA has signed business plans with a number of bean processing or trading companies: Globe Natural, Procesadora Mejía, La Procesadora SAC, Export Import CANDRES, and ALI-SUR. The business plans have

Trout processing plant of Piscifactoria Los Andes in Puno, where women represent 65 percent of the total workforce.

generated $12.4 million worth of new bean sales, and 4,500 additional hectares of beans have been planted — the majority by small farmers who sell their harvests to these companies.

A significant byproduct of that growth has been the entry of copycat firms such as ALISUR, which entered the bean market in Piura in 2007. Interestingly, ALISUR had previously received support from PRA's ESC in Cusco to generate bean sales from Apurímac. ALISUR's current $250,000 investment in the provinces of Morropón, Piura, Sechura, and Chulucanas is expected to raise its sales significantly in the next three years.

Another copycat is DIAGRO, which recently signed a business plan with PRA to link with and source from small bean farmers in Morropón.

In sum, the entry of more firms and the progressive incorporation of more small bean farmers is gradually consolidating a regional bean "cluster" in Piura and dramatically expanding the value of exports of beans from the region.

Attracting investment to economic corridors in the interior of the country requires trust, which can grow if sales are fostered first. Because investment in the physical plant and equipment is usually essential for growth, many development programs make it a top priority to promote investment. But PRA has found that early promotion of investment may be ill-advised, particularly

in economic corridors outside a country's mainstream. PRA learned that convincing potential buyers to source from areas they did not know well and to trust potential suppliers with whom they had no prior commercial contact was often a difficult and time-consuming process. If trust is important for buying, it is essential for investment. In PRA's experience with a number of buyer-investors, a three-step process can build relationships that ultimately attract investment. The first step is to interest firms in buying; the second, to interest them in contributing financially to the consummation of sales transactions — by advancing inputs to suppliers, for example; and the third, once the firms have established relationships of trust, is to interest them in investing in the physical plant and equipment. Piscifactoría de los Andes in Puno illustrates the process.

Until 2003, Piscisfactoría farmed or sourced most of its trout at or near its headquarters in the economic corridor of Huancayo. In that year, with PRA's encouragement and support, it began to explore sourcing relationships with trout suppliers in Puno — Arapa, ATP, and River Fish, for example. As those relationships prospered, Piscisfactoría shared its know-how with its suppliers and helped them produce to market requirements. As its confidence in those suppliers, their communities, and local authorities grew, Piscisfactoría considered investing in a physical plant and equipment near Lake Titicaca. In 2005, with support from PRA's Cusco-Puno ESC, Piscifactoría installed 6 modules with 48 floating cages near the community of Huecalla in the zone of Charcas in the district of Platería in Puno. It also invested $500,000 in a processing plant in the city of Puno's industrial zone. Those investments have substantially boosted Puno's competitiveness in trout, adding value to its natural resources and allowing it to export anywhere in the world. In addition to sourcing from Arapa, ATP and River Fish, Piscifactoría developed sourcing relationships with 16 trout producer associations along the shores of Lake Titicaca. The productivity of those producers has risen an estimated 100 percent, and the unit price they receive for their trout is more than 25 percent higher than previously. Efraín Choque, a supplier from the district of Pomata, increased his trout production from 10 to 80 metric tons per year. Fidel Chaiña, from the district of Capachica, sells not only to Piscifactoría but to other companies demanding quality product.

Piscifactoría's entry into Puno demonstrates not only how investing can grow naturally out of sourcing, but the impact that one serious, committed, entrepreneurial party can have on a whole region.

Discipline is essential. Making decisions through PRA's 5:1 rule helps a development program focus on doing what is cost-effective, not only on what is "good." In principle, there are so many ways for a development program

PRA

to increase sales and jobs that it is essential to consider the cost as well as the opportunity. To bring discipline to its technical assistance, PRA has learned to provide a business development service only if it can reasonably expect a client's sales to increase to at least five times the cost of the service in question. Applying this 5:1 rule has helped ensure that PRA's work focuses on what is cost-effective — not only on what is "good."

To verify that the 5:1 rule actually translated into cost-effective results, the final evaluation team performed a product-by-product analysis of the ratio between new sales and related technical assistance expenditures from 2000 through 2007. The analysis reviewed direct technical assistance expenditures, excluding the fixed costs of the ESCs or the Lima office and the indirect costs of the implementation contractor.

Because the PRA program was originally expected to last five years, the 5:1 rule was based on the same period. And, because the program ran for more than five years and exceeded its sales targets, most new sales/technical assistance expenditures ratios could be expected to exceed 5:1 by a considerable margin. That is exactly what happened. For all products, the final evaluation team estimated the ratio at 75:1. However, within this aggregate ratio there is broad variation. Many of the most cost-effective products involve processing. In contrast, most of the least cost-effective products are primary ones that do not require processing.

PRA's approach is not successful with all clients, and it is not equally cost-effective everywhere. Like most development programs, PRA is quick to share its success stories. But every program, including

PRODUCTS IN WHICH PRA HAS BEEN MOST AND LEAST COST-EFFECTIVE IN PROVIDING TECHNICAL ASSISTANCE, 2000-07

Products	Highest New Sales/Technical Assistance Ratios	Products	Lowest New Sales/Technical Assistance Ratios
Jewelry	372	Soybeans	2
Poultry	315	Garlic	4
Flowers and plants	301	Aromatics and medicinals	6
Tourism	290	Natural rubber	6
Spices	262	Honey	10
Household articles and handicrafts	227	Red pepper	13
Bixin	217	Musk	15
Processed foods	210	Forage	15
Ceramic tiles	202	Corn	16
Tara	188	Cereals	19

PRA, has failure stories, too. Of all the clients with which PRA has signed business plans, roughly half have severed the relationship before achieving agreed-upon objectives. When the final evaluation team looked at those "failures," it found that "[t]he most frequent reason for client departure was a change in client strategy and leadership (67 percent of departures), followed by office closings related to the alternative development program (25 percent of departures), and reduced confidence between PRA and the client (9 percent of departures)." Regardless of the reason, a success rate of 50 percent is not necessarily insignificant. As a point of comparison, Fundación Chile, an organization with an excellent reputation in development circles, estimates that about half of its investments have borne fruit.

In certain environments, PRA's success in helping clients has been less cost-effective. Two cases in point are alternative development zones and economic corridors with high incidences of poverty. From 2004 through 2007, the ratio of new client sales to total ESC expenditures in the economic corridors with alternative development zones was 12.0:1. In the same period, the corresponding ratio for the economic corridors without alternative development zones was about a third higher at 16.2:1.

Similarly, ESCs have been more cost-effective in relatively prosperous economic corridors — Huancayo, Jaén, Piura, Cusco, and Pucallpa — than in poorer ones — Ayacucho, Huancavelica, and Huánuco.

PRA's approach can deliver results even in difficult environments. Although PRA has not been as cost-effective in alternative development zones and the poorest economic corridors as elsewhere, its approach can still deliver impressive results. Successes in two isolated areas are illustrative:

Social conflict characterizes most alternative development zones like the Apurímac and Ene River

RATIOS OF NEW SALES TO TOTAL ECONOMIC SERVICE CENTER COSTS, 2004-07

Economic Corridor	2004	2005	2006	2007	2004-07
Huancayo	13.7	18.9	31.6	36.6	25.3
Jaén	20.7	21.8	20.3	27.7	22.7
Piura	-	5.5	19.7	26.2	19.7
Cusco	11.5	18.5	21.6	22.8	19.3
Pucallpa	12.7	20.4	20.8	23.8	19.3
Ayacucho	3.1	11.0	11.3	12.1	9.6
Tarapoto	4.8	9.5	9.6	5.4	7.2
Huancavelica	1.8	4.5	5.2	3.7	3.8
Huánuco	2.0	2.6	4.5	5.7	3.6
Total	**8.7**	**13.1**	**16.8**	**18.5**	**14.6**

A technical assistance training session with the expert weaver Juan Cutipa and the artisans of the NILTARIO company in Huancavelica.

Valley (VRAE) in Peru. Many communities in the VRAE also are remote, which makes access to markets particularly problematic. Normally, buyers' demands dictate what products PRA supports; in the VRAE, many agreements that the Alternative Development program signed with coca-eradicating communities specified the promotion of cacao. As a consequence, PRA searched aggressively for buyers interested in purchasing cacao from isolated communities in the VRAE and suggested that promoting organic cacao could compensate for problems of physical access. PRA succeeded in capturing the interest of Machu Picchu Trading, Peru's largest cacao exporter to buy from the Ashanika community of Quemperi.

Getting to Quemperi from Huamanga takes eight hours by road from Huamanga to San Francisco, another four hours by road to Puerto Coco, four more hours by boat to Selva de Oro, and another two hours on foot to Quemperi. Despite the difficulty of access, Machu Picchu Trading not only agreed to purchase cacao from the community but also arranged for its certification as organic. The company also provides technical assistance and social benefits to members of the community — for example, advances for school fees. To date, 600 hectares have received organic certification. Eight hundred Ashanika families earn more than they did previously, and now have a buyer on whom they can count.

The economic corridor of Huancavelica suffers serious economic limitations. Although the city of Huancavelica is relatively close to Lima and accessible by good roads, poor roads elsewhere place the rest of the corridor at a disadvantage. Moreover, agriculture is fragmented into tiny holdings, making most Huancavelica farmers unable to compete with their counterparts in areas such as the Mantaro Valley. As a result, entrepreneurship in the corridor is still embryonic. Nonetheless, it is still possible to nurture businesses with interesting growth perspectives that serve their communities although they may not compare with larger and more dynamic schemes elsewhere.

PRA

One example in Huancavelica is the case of the *Federación de Asociaciones de Productores Agropecuarios de Acobama* (FAPAA), which previously produced only the criolla variety of peas — with little success and low market prices. After being in contact with buyers, the Huancavelica ESC encouraged the farmers to switch to the American variety of peas. The yield resulting from the introduction of the new variety of peas resulted in an increase from 2 metric tons per hectare to 5.5 metric tons per hectare with an average price of S/. 1.2 per kilogram ($0.43 per kilogram) compared with an average price of S/. .40 per kilogram ($0.14 per kilogram). In Acobamba, more than 800 families with 500 hectares in 30 communities have generated $1.93 million in new sales (cumulative results from 2004-07) by switching production to the new variety of peas. PRA, in addition to promoting the new variety, provided technical assistance in all aspects of cultivation, harvesting, and post-harvest, with the success of the increased yield. In this case, the ESC worked with local governments. Before achieving these results, the ESC initiated two marketing campaigns in the province of Angaraes, a priority for Minas Buenaventura. The most recent campaign produced 100 hectares of harvested peas.

Learning how to sort out truly promising clients from those who may only appear promising requires time and experience. PRA's overall success rate of 50 percent hides an important lesson: the importance of experience in sniffing out which clients are likely to be successful and which are not.

In its early years, PRA cast its net widely in its search for promising business opportunities. Although PRA expected that a relatively small number of clients would eventually account for a large proportion of new sales, it recognized that it would be unwise put all its eggs in one basket by focusing only on those few clients. When in doubt, therefore, PRA initially entered into business plans with as many clients as possible. Over time however, PRA became more selective and more adept at identifying serious prospects.

The numbers bear this out. In 2000-2001, only 46 percent of the clients signing business plans were still active after a year. In 2001-2002, the percentage was even lower, 34 percent.

In contrast, the percentages in 2005-2006 and 2006-2007 were much higher, 65 and 91 percent, respectively.

Tying performance bonuses to sales and job targets can focus business advisors' attention and boost the probability of delivering substantial results. Many consider the success of development programs to hinge on the training or technical assistance method they apply — that is, their approach to developing capacity. PRA's experience suggests otherwise. Much more important to PRA is that its program personnel — particularly the business promoters in its ESCs — understand very clearly the targets they must meet and that the program will evaluate their contributions to meeting or exceeding those targets. Further, program personnel must understand that their compensation — both salary and performance bonuses — are tied to performance. In short, the program must define what it wants to accomplish and align operational incentives with that goal.

In practice, business promoters may decide to apply a particular training or technical assistance methodology, engage the best teacher they can find, and contract with a management or technical "guru." These are means, not ends. In the final analysis, choosing one option or another is a matter of cost-effectiveness; promoters must ask, "For every dollar I spend on a given alternative, will I see at least five dollars in client sales?" If business promoters know their compensation depends on how they answer that question (and pursue the goal), they have an incentive to act as rational economic agents, maximizing the return on the resources at their disposal. That alignment of PRA program objectives with personal incentives has been central to the program's overall coherence and focus, enabling it to deliver the results it has.

Serious monitoring and evaluation tied closely — not peripherally — to operations is critical to making accountability for reliable results. PRA's monitoring and evaluation office has played a central role. In contrast to development programs that see monitoring and evaluation primarily as database administration and reporting, PRA's management has always viewed it as a management tool. The monitoring and evaluation office has helped management learn rapidly what works and what does not, spot problems, and make mid-course corrections. More than that, given PRA's commitment to delivering results — and the linkage of personnel compensation to those results — the very integrity of program operations has depended on the reliability of the program's sales, employment, and investment data, where "reliability" means not only accuracy but the cause-effect attributability of results to program actions. Monitoring and evaluation has therefore been much more than a desk job. It has required frequent trips to the economic corridors for verification. The office has operated autonomously within the program, minimizing the possibility that the Lima office and the ESCs

Wilson Sucaticona, a coffee grower and member of CECOVASA in Puno and winner of the III National Coffee Competition.

might act as sole judges of PRA's accomplishments.

The monitoring and evaluation office's principal functions have included:

- *Ensuring adherence to PRA's demand-driven approach*. This role was particularly important early in the program, when business promoters had not yet fully internalized the approach of identifying buyers with first names and last names before supporting production per se. In the first few years, the monitoring and evaluation office rejected nonconforming business plans and insisted that the ESCs take corrective action before it would recognize the results generated by those plans.
- *Assessing causality of proposed program actions*. The monitoring and evaluation office evaluated every business plan for the relationship it posited between client bottlenecks and the actions proposed to solve them. If the causality was unclear, or if the ESC did not carry out the actions called for in the business plan, the office would reject any resulting sales, employment, or investment that resulted as not attributable to the program.
- *Auditing results*. The monitoring and evaluation office has verified 100 percent of PRA's results. When the results reported initially were questionable, the office made appropriate adjustments.

PRA's monitoring and evaluation team regularly audits sales, jobs, and investment. Here, the team at a vicuña fur business in Huancavelica.

- *Conducting impact studies*. The monitoring and evaluation office carried out studies to address issues of special interest, particularly the degree to which poor people improved their livelihoods as a result of PRA support.

- *Administering the database and preparing reports*. The monitoring and evaluation office established procedures and protocols for reporting and data entry. It developed special software — SISMONITOR — to respond to requests for reports with speed and agility.

Physical presence in the program's economic corridors and assignment of clients to individual account managers heightened accountability and made PRA more effective. Working effectively with clients requires the building of trust — and building trust depends on personal contact that must occur in specific places. As a practical matter, it takes time — as little as a few weeks, but sometimes months — for business promoters to develop the trust required to build smooth working relationships with clients. This does not happen through brief visits from far away — by parachuting in and then quickly returning to a capital city — but through extended face-to-face contact with clients in both informal and formal settings on their home turf. PRA knows that business promoters who sit in their offices waiting for clients to come to them are unlikely to engender enough trust to be effective.

Physical presence alone is not enough. Over the years, some ESCs have experimented with different organizational models. One organized by function, with different promoters responsible for primary production, value-added processing, and marketing; others made every promoter responsible for all clients. Neither of those options worked well: Putting everybody in charge effectively left no one in charge.

The one model that has worked is assigning each client to only one business promoter. These individual assignments do not isolate promoters from one another. Cooperation and mutual support can — and normally does — take place. And accountability is clear for both PRA and for the client.

Collaborating with other development programs is not always a good thing. In practice, promoting synergy can place everybody in charge and nobody in charge, thereby diluting accountability. Many donor organizations make "synergy" an objective of their programs, arguing that it makes sense for different programs to work together. PRA's experience suggests that this sometimes makes sense — but often it does not.

Inter-program collaboration worked well for the red quinoa operation in Puno. Filling Quinoa Corporation's order for 72 metric tons represented a tremendous technical and organizational challenge for PRA. Coincidentally, CARE had developed its own quinoa program in the area and had a number of quinoa experts on its local staff. Upon learning of the order for red quinoa, CARE was eager to jump in and help make the transaction work by making its extensionists available to the operation, thereby substantially lowering the costs incurred by PRA and its client, El Altiplano SAC.

In the red quinoa case, the incentives for the interested parties to work together resulted in mutual reinforcement. Regrettably, this is not always the case. PRA has generally been good at identifying buyers, and recognizes that many local private voluntary organizations specialize in extending production assistance. In principle, therefore, alliances between the two look like matches made in heaven, with each party contributing its expertise and conserving resources. The alliance between PRA and CARE worked well in Puno, but similar alliances have not always borne fruit. There are several reasons:

- Most importantly, PRA and its collaborating partners usually failed to formalize their agreements to collaborate, either as part of clients' business plans or in separate documents. Both parties presumably acted in good faith, but the absence of written agreements led to misunderstandings afterwards. The lesson is to put commitments in writing — ideally, in business plans.

- Two parties may have different senses of urgency. On one occasion, a PRA partner promised to have its microfinance

arm review the operation and secure a loan for fertilizer for small farmers. However delays in this process resulted in the fertilizer arriving too late in the growing season to be of use.

- Sometimes programs have conflicting operational policies. For example, PRA tries to zero in on a client's most binding constraints. Other programs take a more holistic approach, offering support for whatever clients express a need for. The difference in approach can set up situations in which clients try to play the two programs against each other.

- Organizations' urge to get their names in the limelight can undermine the partners' initial willingness to collaborate.

Despite seeming like a good idea, collaboration doesn't always create a good result; too many cooks can spoil the broth. Unless accountability is clearly defined and enforced, fewer participants may make for a better result.

Actions speak louder than words. Focusing communications on what a program has done — not what it plans to do — can lead to a big payoff. For many of PRA's clients and their suppliers, the decision to engage in a business transaction often hinges on whether others they know have already done something similar successfully. Although a good sales pitch can sometimes sway businesspeople to go ahead, in the end a sales pitch is really nothing more than promises. In contrast, when businesspeople see peers who have already succeeded, a common reaction is, "I can do it, too." The copycat statistics presented in Chapter one bear witness to that phenomenon, as do examples presented elsewhere in this report:

- *Why did Minas Buenaventura and Antamina invest in the ESCs in Huancavelica and Ancash*? Because they saw that the PRA approach worked elsewhere.

- *Why did ALISUR invest in beans in Piura*? Because five other companies were already making money doing so, and ALISUR had worked successfully with PRA in Cusco.

- *Why did risk-averse potato farmers in Ayacucho decide to join AiB in producing artichokes*? Because they could see first-hand that doing so would enable them to earn money.

- *Why did trout farmers in Puno copy the technology of Piscifactoría de los Andes*? Because they saw that the technology worked.

Most development programs communicate with their constituencies. Often, though, their written materials give more attention to what they plan to do in the future than to their past accomplishments. PRA has consciously done the opposite. In the end, it is results that talk, give development programs credibility, and make others want to work with them.

Beneficiaries of PRA's forestry certification component in Ashaninka Sawawo Hito 40 in the Ucayali Region, which receives assistance from Forestal Venao company.

A practical manifestation of PRA's communications strategy has been its series of bulletins, *Proyecto PRA informa*. Its content has consisted primarily of success stories, and PRA has made the layout and design attractive and of professional quality.

Forging alliances between private enterprises and native communities is an effective way to expand forest certification — and, by inference, sustainable forest management. Rather than limiting itself to working with private enterprises and native communities separately, PRA has sought opportunities to build on the natural incentives for the two to work together to expand forest land under certification, generate more income for both parties, and increase the sustainability of the country's forest resources. Private forestry enterprises are normally better positioned financially to bear the costs of certification; the forests managed by native communities are natural places to look for certified wood, for which there is increasing demand. Under such circumstances, alliances between private enterprise and native communities can benefit both.

Nonetheless, many native communities — and nongovernmental organizations that work with them — are reluctant to work with private enterprises, and many private forestry companies are reluctant to rely on forestland that is not their own. Trust is essential.

PRA / MIRIAM MATORELA

Certification may be a ticket to international markets, but not necessarily to higher prices. Certification makes it no less imperative for forestry clients to acquire better intelligence about niche markets — that is, buyers — for different species and to invest in technology, process improvement, and product diversification.

PRA's buyer-led approach works outside Peru. Over the years, USAID has applied PRA's approach in countries that vary economically, socially, institutionally, and historically. With appropriate adjustments to the local context, PRA's process — its demand-driven thinking, results orientation, focus on solving specific business problems, concern for cost-effectiveness and commitment to accountability — has demonstrated its adaptability and delivered impressive results.

Countries in which USAID has applied major elements of PRA's buyer-led approach include Afghanistan, Antigua and Barbuda, Armenia, Azerbaijan, Bangladesh, Bolivia, Dominica, Kosovo, Madagascar, Paraguay, and St. Lucia.

Operationally, the tactic of cultivating connector firms as the "glue" between final markets and small producers has proven an effective way to expand sales and generate substantial employment in environments quite different from Peru.

Although government has an important role to play in creating environments conducive to business activity, it sometimes creates problems by extending its reach into managing businesses and supporting individual transactions. *El zapatero a sus zapatos*. During the 1960s and 1970s, the Peruvian government constructed hundreds of ponds in the *Sierra* where trout could be raised. The goal was to promote the production and consumption of animal protein among the local population. All the fish ponds belonged to the state; they were administered first by the Ministry of Fisheries and later by the Ministry of Production. A few years ago, responsibility for the ponds shifted to regional governments.

Under regional government management, the fish station in Lircay, located in the province of Angaraes in the department of Huancavelica, operated at a fraction of its capacity. Installations deteriorated and were close to collapsing. In 2004, at the urging and with the assistance of PRA's ESC in Huancavelica, the regional government allowed Agroindustrias Floris SAC to operate the station under concession.

Under the terms of the concession, Agroindustrias Floris committed to constructing, repairing, preserving, and operating the station's infrastructure, restoring its productive capacity and fostering economic growth in the area. Thus, Sumac Challwa ("pretty fish" in Quechua), a new company under the aegis of Agroindustrias Floris, was created. Sumac Challwa has invested more than $100,000 in the Lircay fish sta-

tion, which now operates at close to its full capacity of 100 metric tons of trout per year. Under the terms of the concession agreement, Sumac Challwa sells 15 percent of production at cost to the regional government.

The concession of the fish pond in Lircay is an excellent example of an appropriate division of labor between public and private sectors — each of which builds on its strength and leaves to the other what it does best.

PRA's decentralized presence provides an ideal mechanism for establishing facts that aid in setting policy analysis and reform priorities. But bringing about policy change is a difficult process that requires focus, resources, and persistence. When PRA's Lima office reviewed the most significant policy and institutional issues faced by its ESC clients, three emerged: road policy; improving the responsiveness of the government's phytosanitary agency; and addressing the spottiness of secure land titles for small farmers in the *Sierra*.

Given the broad swath of the country represented, eliciting accurate information at the local level was essential. Doing so enabled PRA to understand the issues considered most important by people who actually experienced them. This understanding enabled PRA to make informed decisions on where to focus its policy analysis and dialogue activities.

Although the bottom-up process of eliciting client input pared down to three the range of issues to work on, PRA made a major dent in only one — because USAID provided supplementary funding for policy analysis and dialogue activities, establishing the program's Public-Private Partnerships Component. This experience illustrates an important lesson: No development program can "do policy" across the board. The program may help to bring about significant changes in norms and regulations — for example, those governing use of domestic gold in jewelry-making. However, exerting an impact on big issues requires more: selecting the right issues to work on, dedicating appropriate resources, and conducting unrelenting follow-through.

INFRASTRUCTURE/PPP COMPONENT: LESSONS LEARNED

Promoting public-private partnerships for the development of viable infrastructure projects should be a high priority for USAID. USAID spent a total of $8 million promoting a PPP program that will leverage more than $700 million in private capital investments for badly needed infrastructure. More important, the impact of these concessions on Peru's economy and the well-being of ordinary Peruvians is likely to be enormous. Producers will take their products to market faster and less expensively, and shippers will save hundreds of millions of dollars each year — making Peruvian products more competitive abroad and making imported goods cheaper for consumers. Although these public-private partnership concessions might

have happened without USAID support, they would not have been as technically sound. As a result, the concessions probably attracted, for the ultimate benefit of Peruvians, more competition than they would otherwise have done. Few USAID investments can boast such a return.

A well-designed and well-financed PPP infrastructure program can play an instrumental, catalytic, and transformational role in stimulating the development of lagging as well as conflicted regions. The evidence from Peru suggests that a well-designed and well-financed PPP infrastructure program can play an instrumental and catalytic role in stimulating the transformational development of lagging as well as conflicted regions. This is probably one of the greatest lessons learned from the PRA experience in projects like the Amazon North Highway concession. The potential that public-private partnerships now offer the Peruvian government, either working alone or with interested donors such as USAID, the Inter-American Development Bank, the World Bank, or the MCC to successfully execute major transformational infrastructure investments in conjunction with private investors in the lagging regions east of the Andes, is huge.

The Amazon North highway concession stands as an excellent example of the transformational potential of public-private partnerships. The Amazon North highway has been under construction for more than a hundred years but, as of 2006, more than 300 kilometers of the highway were without pavement, and numerous sections remain barely passable. Exorbitantly high transportation costs prevented the integration of the Amazon economy east of Andes with the national Peruvian markets along the Pacific coast and the international markets beyond. As a consequence, the basic activity in the Amazon basin beyond subsistence agriculture was (and remains) the illicit production of coca, which is easily transported by light vehicles or river boats or from clandestine airstrips. Left on its own, the Peruvian government probably would have required years to complete the highway and would be left with few or no resources for the annual operation and maintenance of more than 900 kilometers of highway, much of which is located in the high-rainfall areas of the Amazon basin. Before the Amazon North Highway concession, the future of the Peruvian Amazon basin held only limited economic prospects. In the absence of all-weather transport links to national markets, there were few marketable options beyond the production of coca and the continued prospects of a regional and local economy dominated by the insidious presence of domestic and international narco-traffickers in alliance with local terrorist organizations. Upon full development in 2009, the Amazon North highway concession will provide all-weather two-way road traffic, maintained to rigorous international standards, between the port of Paita on the Peruvian Pacific coast and the river port of Yurimaguas.

Presently, PROINVERSION is revising the transaction structure and investment promotion plan for the 867-kilometer Amazon Central Highway concession and intends to bring it to closure in 2009, shortly after the end of PRA. It now remains for the government and other international donors to step up to the plate to finance the PPP design and transaction costs of the 450-kilometer Fernando Belaunde Terry highway, which will open the Huallaga valley and link Taraporto in the north with Tingo Maria in the south. Opening the Huallaga Valley by linking it to the Amazon North and Amazon Central highway corridors will stimulate transformational growth and development within the valley and more than likely put an end to the scourge of coca production and the associated cycle of violence and corruption that has doomed the Huallaga valley and, more generally, the Amazon region to a perpetual state of impoverishment.

Apply PPP precepts — they work. PRA's approach to successful PPP was developed and refined over the years, based on experiences with similar projects in Indonesia, Colombia, Egypt, South Africa, the Dominican Republic, and the Philippines. The approach represents a set of principles or precepts that we consider the formula for success in PPP implementation in all sectors. These principles have evolved from lessons learned in these countries — and now in Peru — and are applicable everywhere.

- Apply a multiple-PPP program approach and avoid one-off, ad-hoc transactions
- Provide "alpha-to-omega" technical assistance from the onset of each PPP project design to final contract award and signature
- Encourage vigorous and transparent competition
- Implement a rigorous and methodical transaction design and implementation life-cycle process to produce well-structured, bankable PPP transactions

USAID projects that systematically apply these principles can successfully embark on a transformational program of infrastructure development. Through adherence to these precepts, USAID can help developing countries reduce their infrastructure deficits. To assist developing countries in achieving the transformational impact inherent in public-private participation in infrastructure development, USAID needs to provide technical assistance through a PPP programmatic approach. This implies having a transaction advisor engaged throughout the entire transaction life cycle, promoting competition among international and local investors and private operators, and ensuring well-structured transactions with efficient risk allocation and mitigation mechanisms.

Don't short-change the PPP transaction design and implementation process. Governments and donors alike consistently underestimate the resources and

The Amazon North Highway concession mobilized $220 million in investments and extends 964 km of highway. It is one of the world's longest concession projects.

expertise required to design and close a major infrastructure/ PPP transaction. Governments are often reluctant or unable to adequately finance PPP design and transaction costs from their budgets, and donors are often constrained by limited grant budgets. Perhaps more than any other, this widespread limitation accounts for poorly designed and implemented PPP transactions. One danger in Peru was the eagerness of the government to use the PPP pro-forma business model and contract templates developed by the USAID transaction advisor to advance new and similarly ambitious PPP projects without the prior commitment of adequate up-front resources necessary to ensure the proper technical, engineering, financial, and environmental design of the proposed PPP investment. Templates alone are by no means enough; they must be populated with empirical facts, and this requires an adequate technical assistance transaction design budget. This is indeed unfortunate; the use of the various pro-forma PPP templates and models themselves, without adequate engineering, environment, financial and legal studies and analyses behind them — which require real resources to develop — may lead to failed PPP investments several years down the road.

CHAPTER FOUR

CHAPTER FOUR: WHAT MAKES SENSE FOR THE FUTURE? WHAT DIRECTIONS TO PURSUE?

Many of the lessons learned from PRA have implications for the design and management of development programs in the future. That said, any recommendations for follow-on work made either by USAID or by its implementation contractor can come across as self-serving. As PRA concluded, USAID commissioned an independent third party to evaluate the program's Business Services component. Accordingly, the recommendations related to business services come directly from that evaluation. The recommendations are:

- PRA is working effectively. A follow-on program should maintain the current approach.
- Keep the program focus simple — on market-pull and making deals.
- Market-pull first, supply-push follows. Retain this order for continued PRA success.
- PRA can be a good source for identifying needed changes in the business environment. A separate group should work to resolve those environment issues. PRA's decision to work with a client should always consider if the client can be successful in the current business environment.
- Retain incentives based on targets for sales and investment. Employment is a derived number based on sales; incentives related to employment will only amplify the incentives for sales. Incentives may vary by purpose — for example, sales or investment — by year or by ESC. However, keep them simple and clearly related to project objectives. Note, the more incentives there are, the more difficult it is to design and approve effective performance targets.

The Cordillera Blanca, a symbol of the scenic beauty of Ancash. In May 2007, an agreement between USAID and Antamina facilitated the opening of the Ancash ESC through PRA.

- Collect employment data from companies directly, in the ESCs' monthly reports. Continue estimating work-days for agricultural production and other products that derive from individual and family labor.

- Continue use of nongovernmental organizations or other legal entities as subcontractors (ESC operators), but insist on local presence and decision-making.

- Do not put PRA under USAID's Alternative Development Program, and do not ask the Alternative Development Program to become PRA. Encourage cooperation, but avoid forced collaboration and duplication.

- A break in sales momentum will be costly; it is important to move quickly to the next phase of PRA.

- Gathering data on family impact is needed. Participant income could be collected as part of program activities at a reasonable cost and would help meet the needs of some of the funding agencies. Collecting data capable of statistically reliable control-group treatment is more costly and not recommended for a follow-on project.

- Bring in other funding sources to extend the impact of PRA. It is especially important to cultivate those institutions that traditionally provide supply-push support for develop-

ment programs, including the government of Peru as well as international development agencies. Also, continue the funding relationships with mining companies.

- Going forward, PRA should develop guidelines on how ESCs should interact with local governments that wish to promote business development in their communities. That is especially critical if the communities are offering funding to support the ESCs.

- Do not send the wrong message to PRA implementers regarding short-term technical assistance. There may be times when a foreign expert — whether or not he or she speaks Spanish — is preferable to a host-country national who has language capabilities but is short on experience.

- Explore possibilities to secure Farmer-to-Farmer volunteers for the PRA follow-on program. That could entail funding a Farmer-to-Farmer representative in Peru to ensure scopes of work are well prepared and coordinated carefully with clients.

- Activate cooperation between USAID's Micro and Small Enterprise Development Project (MYPE Competitiva) and PRA to help remove barriers to business development. PRA can identify policies, regulations, and practices that constrain business, and MYPE Competitiva can support Peruvian institutions in implementing the appropriate changes.

PRA

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