



BID

Banco Interamericano
de Desarrollo

Estimación de los costos y beneficios de las prioridades de inversión identificadas en el sector agropecuario en países de la Región Andina

José Luis Bonifaz

Departamento de Países
del Grupo Andino

NOTA TÉCNICA N°
IDB-TN-2747

Julio 2023



BID

Banco Interamericano
de Desarrollo

Estimación de los costos y beneficios de las prioridades de inversión identificadas en el sector agropecuario en países de la Región Andina

José Luis Bonifaz

Banco Interamericano de Desarrollo
Departamento de Países del Grupo Andino

Julio 2023

Catalogación en la fuente proporcionada por la
Biblioteca Felipe Herrera del
Banco Interamericano de Desarrollo

Bonifaz, José Luis.

Estimación de los costos y beneficios de las prioridades de inversión identificadas en el sector agropecuario en países de la Región Andina / José Luis Bonifaz.

p. cm. — (Nota técnica del BID ; 2747)

Incluye referencias bibliográficas.

1. Infrastructure (Economics)-Estimates-Andes Region. 2. Agricultural productivity-Andes Region. 3. Agricultural development projects-Andes Region. 4. Irrigation-Andes Region. 5. Agriculture and energy-Andes Region. I. Banco Interamericano de Desarrollo. Departamento de Países del Grupo Andino. II. Título. III. Serie.

IDB-TN-2747

<http://www.iadb.org>

Copyright © 2023 Banco Interamericano de Desarrollo (BID). Esta obra se encuentra sujeta a una licencia Creative Commons CC BY 3.0 IGO (<https://creativecommons.org/licenses/by/3.0/igo/legalcode>). Se deberá cumplir los términos y condiciones señalados en el enlace URL y otorgar el respectivo reconocimiento al BID.

En alcance a la sección 8 de la licencia indicada, cualquier mediación relacionada con disputas que surjan bajo esta licencia será llevada a cabo de conformidad con el Reglamento de Mediación de la OMPI. Cualquier disputa relacionada con el uso de las obras del BID que no pueda resolverse amistosamente se someterá a arbitraje de conformidad con las reglas de la Comisión de las Naciones Unidas para el Derecho Mercantil (CNUDMI). El uso del nombre del BID para cualquier fin distinto al reconocimiento respectivo y el uso del logotipo del BID, no están autorizados por esta licencia y requieren de un acuerdo de licencia adicional.

Note que el enlace URL incluye términos y condiciones que forman parte integral de esta licencia.

Las opiniones expresadas en esta obra son exclusivamente de los autores y no necesariamente reflejan el punto de vista del BID, de su Directorio Ejecutivo ni de los países que representa.



Resumen

El objetivo general del estudio es identificar los costos de las prioridades de inversión en los sectores de carreteras, energía y riego a nivel municipal o departamental para Bolivia, Colombia, Ecuador y Perú y su impacto sobre la producción agrícola. Debido a que los censos agrícolas (Bolivia y Colombia) y las encuestas (Ecuador y Perú) utilizados en este informe no brindan información sobre la ubicación geográfica de las fincas, no es posible definir si estas se encuentran cercanas a una carretera o a una red eléctrica. Por eso, las estimaciones del análisis beneficio-costos son conservadoras.

Los resultados indican que el impacto de introducir energía eléctrica en las fincas tiene una rentabilidad positiva sobre la producción agrícola en todos los países analizados. Asimismo, en el caso de carreteras, la inversión es rentable en Colombia y Ecuador solo para soluciones de pavimento básico, pero en Ecuador solo para caminos de grava. En cambio, en Perú, las inversiones en carreteras superan el valor neto de la productividad. Por último, solo en el caso de habilitación de tierras eriazas sería beneficioso realizar inversiones en riego para todos los países andinos.

Palabras Clave:

Infraestructura, carreteras, energía, riego, análisis costo-beneficio, productividad agrícola, países andinos.

Códigos JEL:

C81, H54, I38, O12, R11.

TABLA DE CONTENIDO

| | |
|---|-----------|
| INTRODUCCIÓN | 5 |
| 1. ESPECIFICACIÓN DE LAS PRIORIDADES DE INVERSIÓN DERIVADAS DE LOS ESTUDIOS PREVIOS E INVERSIONES ADICIONALES RELEVANTES..... | 7 |
| 1.1 Infraestructura de carreteras y productividad total de factores en países de América del Sur | 7 |
| 1.2 El impacto de las redes viales sobre la eficiencia técnica de las fincas: una aproximación utilizando fronteras estocásticas aplicada a las fincas en países andinos | 10 |
| 1.3 Producción agrícola y uso de energía en Bolivia, Perú y Colombia | 15 |
| 1.4 Producción agrícola y riego en Bolivia, Colombia, Ecuador y Perú | 18 |
| 1.5 Resumen de impactos | 20 |
| 2. DESCRIPCIÓN DE LA METODOLOGÍA POR UTILIZAR EN EL CÁLCULO DE LOS COSTOS DE LOS PROYECTOS DE INVERSIÓN Y SUS FUENTES DE DATOS..... | 21 |
| 2.1 Agua y saneamiento | 21 |
| 2.2 Energía | 22 |
| 2.3 Carreteras | 23 |
| 2.4 Riego | 24 |
| 3. ESTIMACIÓN DE COSTOS..... | 25 |
| 3.1 Agua | 25 |
| 3.2 Saneamiento | 25 |
| 3.3 Energía | 26 |
| 3.4 Carreteras | 26 |
| 4. ANÁLISIS DE LOS FACTORES QUE PUEDEN AFECTAR LA CONFIABILIDAD DE DICHA ESTIMACIÓN..... | 28 |
| 5. IMPACTO DE LA INVERSIÓN EN INFRAESTRUCTURA SOBRE LA PRODUCTIVIDAD DEL SECTOR AGRÍCOLA | 30 |
| 5.1 Marco teórico | 30 |
| 5.2 Supuestos y parámetros del modelo | 31 |
| 5.3 Resultados | 34 |

| | |
|---|------------|
| 6. RECOMENDACIONES DE POLÍTICA PÚBLICA..... | 42 |
| 6.1 Energía | 42 |
| 6.2 Carreteras | 43 |
| 6.3 Riego | 43 |
| ANEXO 1. BASE DE DATOS: ESTADÍSTICAS DESCRIPTIVAS..... | 44 |
| ANEXO 2. ENERGÍA | 52 |
| ANEXO 3. CARRETERAS | 97 |
| ANEXO 4. RIEGO | 147 |

INTRODUCCIÓN

El objetivo general del estudio es identificar los costos de las prioridades de inversión en el sector agropecuario a nivel municipal o departamental detectado en estudios previos¹ para los países andinos², y de inversiones adicionales (públicas y privadas) en infraestructura física. La estimación de los costos será un factor determinante para valorar los beneficios que dicha infraestructura rural tiene en la productividad del sector.

En particular, los objetivos específicos son:

- Recapitular las prioridades de inversión identificadas en dichos estudios y su impacto sobre la producción agrícola a nivel municipal en los sectores de carreteras, energía y riego para los países andinos.
- Especificar la metodología por utilizar en el proceso de costeo de las oportunidades de inversión identificadas y las fuentes de datos por consultar.
- Presentar en detalle las estimaciones de costos unitarios e indicadores de beneficio de las inversiones identificadas, incluyendo un análisis de los factores que pudieran afectar la confiabilidad de las estimaciones. Este ejercicio deberá contar con una hoja de cálculo de respaldo, parametrizada, que pueda ser fácilmente modificada por el Banco, de ser necesario.
- Presentar los hallazgos más importantes en un informe sucinto, que recoja los puntos anteriores y delimite las conclusiones sobre el beneficio de dicha infraestructura en la productividad del sector.
- Plantear recomendaciones de política pública que fortalezcan los hallazgos encontrados.
- Preparar una presentación ejecutiva con los mensajes principales, que sea visualmente atractiva y que ofrezca recomendaciones de política pública.

En este Informe se presentan seis secciones de acuerdo con los Términos de Referencia. En la primera sección se presenta un resumen de los estudios previos que identifican los impactos de las inversiones en energía, carreteras y riego sobre la producción agrícola en los cuatro países andinos estudiados (Bolivia, Colombia, Ecuador y Perú).

En la segunda sección se describe la metodología por utilizar en el cálculo de los costos de los proyectos de inversión y sus fuentes de datos. En la tercera sección se presenta la estimación de costos unitarios

¹ Anteriormente, el Banco había estudiado el estado de la infraestructura rural y las prioridades de inversión a nivel municipal en la región andina. Este trabajo constituye la base analítica para cuantificar dichas prioridades de inversión y determinar el aporte marginal de cerrar estas brechas, en un contexto de restricciones fiscales importantes y necesidades de ajuste en el mediano plazo. En ese sentido, el presente estudio tiene como objetivo cuantificar las prioridades de inversión determinadas anteriormente y estimar los beneficios derivados. Los estudios fueron elaborados por Felipe Silva, Carlos Freitas y Mateus Neves.

² Bolivia, Colombia, Ecuador y Perú.

por sector. En la cuarta sección se describen los factores que pueden afectar la estimación anterior. En la quinta sección se presentan los supuestos y la metodología usados para estimar los beneficios y costos de la inversión en infraestructura de energía, carreteras y riego sobre la productividad del sector agropecuario. Por último, en la sexta sección se presentan algunas recomendaciones de política pública.

1. ESPECIFICACIÓN DE LAS PRIORIDADES DE INVERSIÓN DERIVADAS DE LOS ESTUDIOS PREVIOS E INVERSIONES ADICIONALES RELEVANTES

En esta sección se presenta un resumen de los cuatro estudios previos realizados que estiman impactos de las inversiones en riego, energía y carreteras sobre la producción agrícola para los cuatro países andinos (Bolivia, Colombia, Ecuador y Perú). Asimismo, se identifican las elasticidades de las inversiones prioritarias derivadas de los mencionados estudios.

1.1 Infraestructura de carreteras y productividad total de factores en países de América del Sur³

En este artículo se utiliza el análisis de frontera estocástica para estimar la Productividad Total de Factores (PTF) para 10 países de América del Sur⁴, incluidos los países andinos, desde 1969 hasta 2016, y se identifica el efecto de la red vial y el uso de energía en la eficiencia técnica.

La tecnología agrícola de estos países es representada como una función de producción *translog* y se estima la tasa de crecimiento de la productividad agrícola utilizando un enfoque de frontera estocástica (SFA). La función de producción se puede definir como:

$$Y_{it} = f(X_{it}, t; \beta) e^{(v_i - u_i)} \quad i = 1, \dots, I \quad t = 1, \dots, T \quad (1)$$

donde Y_{it} es la producción de i -ésimo país durante el período de tiempo t (1969 a 2016); X_{it} es el vector de insumos utilizado para el i -ésimo país en el año t ; y β es un vector de los parámetros por estimar, que definen la tecnología de producción. Los términos de error v_i y u_i son vectores que representan componentes distintos del error: v_i , el componente de error aleatorio, tiene una distribución normal, independiente e idénticamente distribuida (iid), con varianza $\sigma_v^2 [v \sim iidN(0, \sigma_v)]$; y u_i es responsable de capturar la ineficiencia técnica del i -ésimo país, es decir, la distancia de la frontera de producción. Tanto v_i como u_i son variables aleatorias no negativas (Battese y Coelli, 1995).

Para estimar la productividad total de los factores agrícolas para los países de América del Sur, se recopilan diversas variables y utilizan varias fuentes. Entre las variables más importantes para este estudio tenemos:

- Producción, medida en valor de la producción agrícola bruta en dólares internacionales, un índice con la base 2004-2006, de la FAO;

³ Silva, Freitas y Neves (2021).

⁴ Argentina, Bolivia, Brasil, Chile, Colombia, Ecuador, Paraguay, Perú, Uruguay y Venezuela.

- La energía, aquí medida como kilovatios-hora (kWh) (de la electricidad) per cápita, se obtuvo de los datos del Banco Mundial para todos los países. Los dos últimos años de nuestra muestra para esta variable se completaron con información de CEPALStat;
- Carreteras, medidas en kilómetros (km), utilizan datos recopilados de varias fuentes, incluida la CEPALStat, la base de datos de la historia económica de América Latina de Montevideo-Oxford (MOxLAD), los datos del Banco Mundial y el World Factbook de la CIA, así como de fuentes oficiales en cada país.

Las variables utilizadas para explicar la ineficiencia son las siguientes: con base en Trindade y Fulginiti (2015), contabilizan el riego, la apertura comercial, el PIB per cápita, la educación y la salud (esperanza de vida). Encuentran que estas variables explican la ineficiencia (estadísticamente significativa al 10%): mientras que la apertura comercial y el PIB per cápita aumentan, la ineficiencia⁵, el riego, la educación y la salud la disminuyen. Además de estas variables, agregan electricidad (medida en kWh per cápita) y densidad de carreteras (kilómetros por kilómetro cuadrado).

Los resultados indican que la variación de la PTF agrícola promedio general ponderada para los países de América del Sur es del 1,55% anual, mientras que para los países andinos es del 1,1% y para los países no andinos, del 1,7%. Los países andinos crecieron, en promedio (ponderado), más lentamente que los países no andinos como grupo. Por otro lado, Bolivia, Ecuador y Colombia, en todo el período de análisis, mostraron un crecimiento de menos del 1% anual. Considerando solo el período 1969-2009, encontramos que solo Bolivia (0,2%) y Colombia (0,9%) tienen tasas de crecimiento menores a 1%.

Los resultados para los países andinos se observan en el Cuadro 1:

Cuadro 1. Promedio de la productividad total de factores agrícolas en países de América del Sur (1969-2016)

| País | 1969-1979 | 1980-1989 | 1990-1999 | 2000-2009 | 2010-2016 |
|-----------|-----------|-----------|-----------|-----------|-----------|
| Bolivia | -0.497 | -0.237 | 0.950 | 0.611 | 0.679 |
| Colombia | 0.785 | 0.991 | 0.913 | 1.008 | 1.399 |
| Ecuador | 1.702 | 2.461 | 2.481 | 1.139 | -4.714 |
| Perú | 0.463 | 0.493 | 1.984 | 2.208 | 2.878 |
| Venezuela | 1.119 | 1.511 | 1.644 | 1.690 | -0.833 |

Fuente: Silva, Freitas y Neves (2021).

⁵ A mayor apertura comercial, el valor bruto de la producción agrícola disminuye debido a la mayor penetración de productos agrícolas importados y a la dependencia de los movimientos de los precios mundiales. Asimismo, a mayor PBI, es menor el peso del valor de la producción agrícola respecto del PBI.

Luego, para hallar los determinantes de la ineficiencia, en el modelo incluyen la densidad de carreteras, riego, electricidad, apertura, PIB per cápita, educación y salud (esperanza de vida) para explicar la ineficiencia. La variable clave en el término de ineficiencia es la densidad de carreteras y encuentran que disminuye la ineficiencia técnica. Los países de América del Sur tienen una densidad vial considerablemente baja en comparación con los países desarrollados, lo que genera costos de transporte considerablemente altos y limita su competitividad en el mercado agrícola internacional (Briceño-Garmendia et al., 2015). Los resultados indican que una mayor densidad de carreteras se asocia con una menor ineficiencia técnica. Una menor ineficiencia técnica en el año $t + 1$ implica un cambio de eficiencia positivo, por lo tanto, una mayor tasa de PTF.

Utilizando Wang (2002), calculan el efecto marginal promedio de la densidad de carreteras sobre la ineficiencia para cada país. Encuentran que una menor ineficiencia se asocia con una mayor densidad de carreteras para todos los países; el efecto marginal promedio general es 0,0092 (la densidad de carreteras promedio general para los países de América del Sur es de 11.66 km / km²). Este efecto marginal implica que el nivel de ineficiencia técnica se reduce, en promedio, en 0,9% por cada 1% de aumento en la densidad de carreteras. Los resultados indican que el mayor efecto marginal se encuentra en Perú y Ecuador, con una reducción de más del 3% de la ineficiencia técnica, en promedio, por cada 1% de aumento en la densidad de carreteras. En la estimación de los determinantes para el término de ineficiencia, también controlan otras variables que pudieran contribuir a su explicación. Encuentran que la electricidad, la apertura y la salud (esperanza de vida) disminuyen la ineficiencia.

En resumen, en este artículo estimamos la Productividad Total de los Factores Agrícolas (PTF Ag) para los países de América del Sur durante el período 1969-2016 para identificar el efecto de la densidad vial en la PTF a través del cambio de eficiencia. Nuestro enfoque está en los países andinos (Venezuela, Colombia, Ecuador, Perú y Bolivia), que en 2016 produjeron el 16,3% del valor total de la producción agrícola en América del Sur, equivalente al 1,2% del valor mundial de la producción ese año. En comparación con los países desarrollados, estos países tienen una red vial deficiente y escasa que en su mayoría no está pavimentada, lo que podría limitar la capacidad de las fincas para administrar eficientemente los insumos de producción, aumentando la ineficiencia técnica.

Para los países de América del Sur, encuentran promedios ponderados para el Cambio Técnico y la PTF agrícola de 1,56% y 1,55% por año, respectivamente. En primer lugar, identifican una fuerte reducción de la PTF para Ecuador y Venezuela durante el período 2009-2016, principalmente impulsada por los desafíos económicos que estos países enfrentaron durante este período. En segundo lugar, estiman el efecto de la densidad de carreteras en la eficiencia técnica para los países de América del Sur, lo que arroja una reducción de la ineficiencia técnica agrícola, en promedio, de 0,9% por cada aumento del 1% en la densidad de carreteras.

1.2 El impacto de las redes viales sobre la eficiencia técnica de las fincas: una aproximación utilizando fronteras estocásticas aplicada a las fincas en países andinos⁶

En este documento, los autores estiman la eficiencia técnica agrícola utilizando una función de producción estocástica para evaluar si la infraestructura vial y el acceso a energía ayudan a disminuir la ineficiencia técnica agrícola. El objetivo en este documento fue estimar la eficiencia técnica y sus determinantes en el nivel más bajo posible -fincas- para cada país utilizando conjuntos de datos nacionales. Para Perú, usan la Encuesta Nacional Agropecuaria de 2017; para Bolivia, el Censo Agropecuario de 2013 (Censo Agropecuario 2013); para Colombia, el Censo Agropecuario de 2014 (3er Censo Nacional Agropecuario 2014), y para Ecuador, la Encuesta de Superficie y Producción Agropecuaria Continua de 2017 (ESPAC) y la información geográfica sobre la red de carreteras y el tiempo de viaje al pueblo más cercano con 50.000 habitantes o más (accesibilidad).

En el análisis de eficiencia, también controlan por energía, extensión y crédito. Si bien existe evidencia de que la electricidad rural tiene el potencial de aumentar los ingresos, aliviar la pobreza y mejorar el nivel de educación, les interesa identificar el papel del uso de energía en la producción agrícola. La falta de acceso a las fuentes de energía también podría haber restringido la capacidad de los agricultores para acceder a la información o utilizar mejores insumos. También controlan el efecto del acceso a la extensión y al crédito sobre la eficiencia. Existe evidencia en la literatura de que estas dos variables disminuyen la ineficiencia agrícola.

El siguiente cuadro muestra las estadísticas de las principales variables:

Cuadro 2. Estadísticas descriptivas de las variables utilizadas en la estimación (Colombia, Bolivia, Perú y Ecuador)

| | Bolivia | Colombia | Ecuador | Perú |
|---|---------|----------|---------|--------|
| Valor de producción (US\$) | 3747 | 5449 | 27353 | 8777 |
| Trabajo (<i>suma de empleados</i>) | 6.766 | 6.476 | 4.953 | 14.50 |
| Tierra (<i>ha</i>) | 6.15 | 11.46 | 21.84 | 33.68 |
| Capital (US\$) | - | - | - | 5254 |
| Extensión (<i>yes or no</i>) | 0.0539 | 0.102 | - | 0.0922 |
| Crédito (<i>yes or no</i>) | 0.0872 | 0.144 | - | 0.135 |
| Energía (<i>yes or no</i>) | 0.358 | 0.377 | - | |
| Densidad de caminos (<i>km / 100 Km²</i>) | 0.115 | 31.41 | 0.783 | 35.24 |
| Tiempo de viaje (<i>horas</i>) | 3.62 | 2.971 | 1.218 | 4.575 |
| Densidad poblacional (<i>personas/Km²</i>) | 44.87 | 109.1 | - | 85.82 |
| Tamaño de Finca (<i>dummy</i>) | | | | |
| 0 – 5 ha | 0.873 | 0.752 | 0.642 | 0.421 |
| 5 – 10 ha | 0.0570 | 0.101 | 0.118 | 0.154 |

⁶ Silva, Freitas y Neves (2021).

| | Bolivia | Colombia | Ecuador | Perú |
|---------------|----------|----------|---------|--------|
| 10 – 50 ha | 0.0519 | 0.117 | 0.156 | 0.270 |
| 50 – 100 ha | 0.0103 | 0.0165 | 0.0329 | 0.0625 |
| 100 – 500 ha | 0.00672 | 0.0123 | 0.0455 | 0.0700 |
| 500 – 1000 ha | 0.000869 | 0.00155 | 0.00450 | 0.0122 |
| 1000+ ha | 0.000556 | 0.000998 | 0.00129 | 0.0107 |

Fuente: Silva, Freitas y Neves (2021).

Los autores estiman la frontera estocástica asumiendo varias formas funcionales, incluyendo la función de producción *Cobb-Douglas* y *Translog*. Como en Coelli et al. (2003), la tecnología se puede representar como:

$$y = \alpha + \beta'x + x'Bx + \delta'z + \Gamma_1 + \Gamma_2 + \varepsilon \quad (2)$$

donde y representa el logaritmo del valor bruto de producción; $x = x_1, x_2, x_3$ es una matriz de tres entradas: mano de obra (x_1), tierra (x_2) (para todos los países), capital (x_3) para Perú; z es una matriz de variables que representan el capital, como se describe en la sección anterior, para Colombia, Ecuador y Bolivia; Γ_1 es una matriz de municipios (para Bolivia y Colombia) o estados (para Perú y Ecuador); Γ_2 representa efectos fijos para el tamaño de la finca; α, β, δ y B son vectores de parámetros por estimar y ε es el término de error compuesto descrito anteriormente. Aunque no es el objetivo principal del trabajo, calculamos las elasticidades de producción para todos los insumos.

Para explicar la ineficiencia, incluyen la densidad de carreteras (o tiempo de viaje), la densidad de población, el acceso a la extensión, el acceso al crédito y el uso de energía (electricidad, gasolina, diésel y energía eólica para Bolivia y electricidad, gasolina, diésel, energía eólica y energía solar para Colombia). Agregan densidad de población para poder estimar un efecto no sesgado de la densidad de carreteras en el término de error de ineficiencia, que podría capturar el efecto de una ciudad grande (mayor densidad de carreteras) en el término de ineficiencia. Esperan que la densidad de carreteras (tiempo de viaje), la extensión y el crédito disminuyan (aumenten) la ineficiencia.

En el cuadro siguiente se presentan las elasticidades de producción para la ecuación anterior para Colombia, Bolivia, Perú y Ecuador, utilizando la densidad de carreteras como variable explicativa en el término de ineficiencia (los resultados son bastante similares cuando se utiliza el tiempo de viaje). En promedio, las elasticidades indican que la estimación es coherente con la teoría económica. Las elasticidades de producción para Perú se encuentran en el rango reportado por el Banco Mundial (2017), que estima elasticidades de producción para cuatro tipos de producción, como que la elasticidad del trabajo varía de 0,16 a 0,38 y la elasticidad de la tierra varía de 0,29 a 0,55.

Así, por ejemplo, en Bolivia por cada aumento de 10% en la fuerza laboral (trabajo), la producción agrícola aumenta, en promedio, en 1,38%. De la misma forma, al aumentar en 10% la superficie de tierra en Colombia, la producción agrícola, en promedio, aumenta en 7,79%.

Cuadro 3. Elasticidades promedio de producción (Colombia, Bolivia, Perú y Ecuador)

| País/Elasticidad | ε_{x_1} (Trabajo) | ε_{x_2} (Tierra) | ε_{x_3} (Capital) |
|------------------|----------------------------------|---------------------------------|----------------------------------|
| Bolivia | 0.138*** (0.002) | 0.581*** (0.002) | - |
| Colombia | 0.098*** (0.00) | 0.779*** (0.002) | - |
| Ecuador | 0.481** (0.03) | 0.730*** (0.015) | - |
| Perú | 0.195** (0.012) | 0.345*** (0.012) | 0.486*** (0.007) |

Fuente: Silva, Freitas y Neves (2021).

Note: We only calculate the capital elasticity for Peru, given that we only take the logarithm of capital measures for this country. Elasticity for land was calculated only for the observations with positive land. Standard errors are in brackets and were calculated using the delta method. Statistical significance: * $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$. Violations: For Bolivia, 3% and 0% of the observations for labor (x_1), and land (x_2) do not satisfy monotonicity; for Peru, 2%, <1% and 2.5% for x_1 , x_2 and x_3 do not satisfy; for Ecuador, <1% and <1% for x_1 and x_2 do not satisfy; and for Colombia, 1.1% and 6% for x_1 and x_2 do not satisfy.

En el Cuadro 4, se presenta la eficiencia técnica promedio y los determinantes estimados para ambos modelos con densidad de caminos y tiempo de viaje. Se encuentra que la densidad de caminos (tiempo de viaje) disminuye (aumenta) la ineficiencia, excepto en Colombia. Los resultados del efecto de la densidad vial en la eficiencia técnica para Bolivia, Perú y Ecuador refuerzan el resultado encontrado en la literatura en cuanto a que la densidad de carreteras disminuye la ineficiencia técnica.

Cuadro 4. Eficiencia técnica promedio y parámetros estimados (Colombia, Bolivia, Perú y Ecuador)

| | Bolivia | | Colombia | | Ecuador | | Perú | |
|----------------------|------------------------|----------------------|----------------------|-----------------------|------------------------|-----------------------|----------------------|----------------------|
| | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) |
| Promedio ET | 0.549 | 0.55 | 0.457 | 0.458 | 0.334 | 0.335 | 0.638 | 0.64 |
| Densidad de caminos | -1.456*** (0.057) | - | 0.0007*** (7e+05) | - | -0.1423*** (0.0194) | - | -0.003*** (0.001) | - |
| Tiempo de viaje | - | 0.036*** (0.001) | - | -0.027*** (0.0004) | - | 0.0669*** (0.0113) | - | 0.011*** (0.003) |
| Densidad poblacional | 0.0004*** (2.2e+05) | 0.0005*** (2e+05) | 0.0003*** (6e+06) | -1.89e-06 (6e-06) | - | - | 0.0001** (5e+05) | 0.0007 (5e+05) |
| Energía | -0.039*** (0.007) | -0.05*** (0.007) | -0.065*** (0.005) | -0.087*** (0.004) | - | - | - | - |
| Crédito | -0.255*** (0.011) | -0.236*** (0.011) | -0.26*** (0.006) | -0.274*** (0.006) | - | - | -0.525*** (0.061) | -0.529*** (0.062) |
| Extensión | -0.202*** (0.013) | -0.196*** (0.013) | -0.476*** (0.08) | -0.482*** (0.008) | - | - | -0.430*** (0.071) | -0.445*** (0.075) |

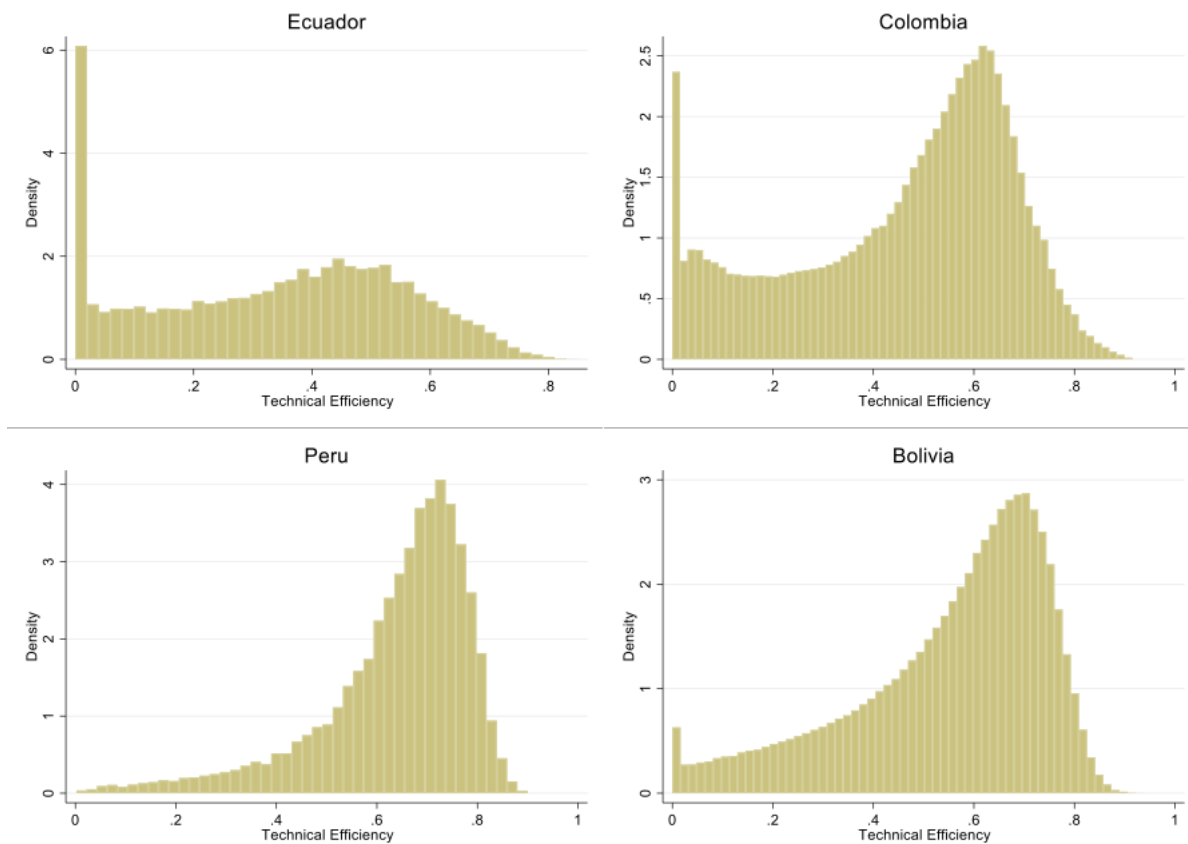
Fuente: Silva, Freitas y Neves (2021).

Note: Standard error in brackets. Statistical significance: * $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$. For Ecuador we also included dummy variables for farm size given that the survey did not provide information on producer and farm characteristics. We also include farm size dummies in the inefficiency error term for Bolivia and Colombia

La eficiencia técnica promedio para Bolivia fue de 0,55, lo que implica que los agricultores podrían potencialmente aumentar la producción hasta en un 45% mientras mantienen los insumos constantes. Por su parte, los agricultores de La Paz (0,57), Potosí (0,56) y Oruru (0,56) fueron más eficientes en promedio, los agricultores de Santa Cruz fueron los menos eficientes, con un promedio de 0,49. Encuentran resultados muy similares para Perú, donde la densidad de carreteras, la extensión y el crédito disminuyen la eficiencia. Mientras que Loreto y Madre de Deus tienen una eficiencia promedio de 0,61 y 0,62, Lambayeque y Ancash muestran eficiencias promedio de 0,65 y 0,64. La eficiencia promedio para Ecuador fue de 0,34, donde Guayas y Los Ríos tienen una eficiencia promedio de 0,4, y Chimborazo y Azuya tienen eficiencias promedio de 0,27 y 0,25, respectivamente. Finalmente, la eficiencia técnica promedio para Colombia es de 0,46, con Antioquia, Santander y Vichada en promedio.

Los hallazgos también sugieren que los agricultores que usaban fuentes específicas de energía tenían una ineficiencia menor. En la Figura 1, se muestra el histograma de la eficiencia técnica para los cuatro países para el modelo que incluye la densidad de carreteras como explicación de la ineficiencia. La distribución de la eficiencia técnica es muy similar en los cuatro países, excepto por una gran cantidad de fincas con bajos niveles de eficiencia para Ecuador.

Figura 1. Histograma de la eficiencia técnica (Colombia, Bolivia, Perú y Ecuador)



Fuente: Silva, Freitas y Neves (2021).

También estiman la eficiencia técnica para el modelo de tiempo de viaje para comparar los promedios de eficiencia técnica bajo cuatro cuartiles diferentes de tiempo de viaje (descripción en el Cuadro 5). La eficiencia técnica (ineficiencia) disminuye (aumenta) a medida que la finca se aleja de las ciudades con más de 50.000 habitantes o 1500 habitantes por km cuadrado. Los resultados para Bolivia muestran que la eficiencia técnica disminuye a medida que el tiempo de viaje aumenta de 0,556 a 0,523, en promedio. También observan solo un pequeño cambio en la eficiencia técnica de las granjas peruanas y ecuatorianas, ya que están más lejos de las ciudades más grandes. No encuentran una relación clara entre el tiempo de viaje y la eficiencia para Colombia, y esto era de esperar, dado que el coeficiente del cuadro anterior tiene el signo incorrecto.

Cuadro 5. Eficiencia técnica promedio por tiempo de viaje (cuartiles)

| País/Cuartiles | < 25% | 25% > x < 50% | 50% > x < 75% | x > 75% |
|-----------------|-------|---------------|---------------|---------|
| Bolivia | 0.562 | 0.563 | 0.556 | 0.524 |
| Colombia | 0.462 | 0.465 | 0.447 | 0.453 |
| Ecuador | 0.321 | 0.354 | 0.341 | 0.321 |
| Perú | 0.647 | 0.643 | 0.637 | 0.633 |

Fuente: Silva, Freitas y Neves (2021).

Note: The quantiles for travel time represent distance to the city – higher quantile implies further away from urban areas. For Bolivia, 25% quantile is 1.48 hour, 50% is 2.4 hours, and 75% is 4.4 hours. For Ecuador, 25% quantile is 0.46 hour, 50% is .83 hours, and 75% is 1.41 hours. For Colombia, 25% quantile is 0.68 hour, 50% is 1.31 hours, and 75% is 2.65 hours.

Los hallazgos que se muestran en los cuadros anteriores indican que, en general, la red de carreteras reduce la ineficiencia técnica. Se encuentra evidencia que apoya esta afirmación, utilizando dos medidas diferentes para Bolivia, Perú y Ecuador: densidad de carreteras y tiempo de viaje. El tiempo de viaje está directamente relacionado con la red de carreteras; mide tanto la distancia a la ciudad grande más cercana como la calidad de la carretera. Las mejoras en la red de carreteras (como el mantenimiento y la construcción de nuevas carreteras) reducirían el tiempo de viaje y reducirían la ineficiencia. Además del efecto directo de la red de carreteras en los ingresos agrícolas (ganancias), a través de los costos asociados con la distribución de la producción y la demanda de insumos, los resultados sugieren que la red de carreteras afecta directamente el uso de insumos en la producción agrícola.

En resumen, los resultados sugieren que la densidad de las carreteras y el tiempo de viaje afectan la eficiencia agrícola de los cuatro países. Encuentran que los aumentos en la densidad de carreteras disminuyen la ineficiencia técnica agrícola para Bolivia, Perú y Ecuador, lo que corrobora la hipótesis de que la disponibilidad de la red de carreteras puede ayudar a los agricultores a utilizar mejor los insumos en su producción. Por otro lado, encuentran que los agricultores que tardan más en llegar a las grandes ciudades tienen una mayor ineficiencia técnica en Bolivia, Perú y Ecuador. Si bien este resultado corrobora el efecto de la densidad de carreteras, es aún más rico porque da cuenta de otros modos de transporte y la

calidad de estos modos. Estos resultados arrojan luz sobre la relevancia para los agricultores de la red de carreteras y el transporte.

El censo agrícola y las encuestas para estos países no brindan información sobre la ubicación geográfica de las granjas, lo que limita la capacidad para medir el tiempo de viaje desde la granja hasta la ciudad grande más cercana y el acceso a las carreteras (una mejor medida en comparación con la densidad de carreteras). Estos conjuntos de datos solo brindan información durante un año, lo que no permite estimar el impacto de las nuevas carreteras o políticas de red en la eficiencia técnica. El conjunto de datos de Colombia, Bolivia y Ecuador no proporciona información sobre los precios o el valor de la producción. Usan precios de la FAO para construir la variable de producción para productos seleccionados con el precio disponible. Hay dos problemas con este enfoque: potencialmente no puede representar toda la producción agrícola (el agricultor podría estar produciendo dos cultivos, uno considerado y otro no) y asume un precio único para los productores de todo el país.

1.3 Producción agrícola y uso de energía en Bolivia, Perú y Colombia⁷

En este documento se explora la relación entre energía y desempeño agrícola en Bolivia, Perú y Colombia. La literatura económica y los informes de política indican que el acceso a la energía (electricidad) tiene un efecto inequívocamente positivo en la producción agrícola. Para probar esta hipótesis, se analizan los censos agrícolas y las encuestas nacionales y se estima el impacto directo e indirecto de la energía en el valor de la producción utilizando la técnica *Propensity Score Matching* (PSM).

Para investigar el efecto del acceso a la energía en la producción agrícola, utilizan censos y encuestas agrícolas para cada país. El impacto de la energía en la agricultura para Perú se investigó utilizando la Encuesta Provincial a Hogares Rurales (EPHR) de 2014, dado que la Encuesta Nacional Agropecuaria de 2017 -utilizada en los otros capítulos- no proporcionó información sobre el acceso/uso de la energía. Para Bolivia usan el Censo Agropecuario de 2013 (Censo Agropecuario 2013) y para Colombia, el Censo Agropecuario de 2014 (3er Censo Nacional Agropecuario 2014). La falta de datos sobre energía para Ecuador y la falta de información para Venezuela limitaron el análisis de esta variable para estos países.

El Cuadro 6 presenta el análisis descriptivo de características importantes consideradas en la estimación del efecto del uso de energía en la actividad agrícola en Bolivia, Perú y Colombia. La primera columna presenta el promedio de acceso a las políticas consideradas (crédito y extensión) y la medida de tiempo de viaje (tiempo de permanencia en el municipio más poblado (500.000 habitantes)). En general, se observa una mayor incidencia de productores con acceso a servicios de extensión en Perú (11,8%), mientras que en Colombia y Bolivia hubo una mayor presencia de productores con acceso a crédito (14,4% y 8,5%, respectivamente). Para ambas políticas, los datos indicaron que los productores rurales bolivianos tienen menos acceso a estos instrumentos de política (5,3% para extensión y 8,5% para crédito). En cuanto al tiempo de viaje, Perú fue el país con mayor distancia promedio a los principales núcleos de población, con un promedio de 3,6 horas.

Antes de emparejar la muestra, se verificó en todos los países analizados un mayor acceso al crédito y políticas de extensión rural entre aquellos productores con acceso a energía. La mayor diferencia se observó en Colombia, donde los productores con acceso a energía tuvieron, en promedio, 5.2 p.p. y 7.8 p.p. mayor participación en las políticas de extensión y crédito, respectivamente.

⁷ Silva, Freitas y Neves (2021).

Aunque no hubo grandes diferencias entre los grupos con y sin acceso a energía en cuanto a viajes en el tiempo en Bolivia, se observó que, en Perú y Colombia, la distancia promedio a las grandes ciudades fue mucho mayor entre el grupo sin acceso a energía. En dichos países, los productores que declararon que no utilizaron energía en el desarrollo de la actividad se ubican en áreas relativamente más distantes, en comparación con los que tienen acceso a alguna fuente de energía.

Para identificar el efecto de la energía sobre la variable de interés (valor de producción), fue necesario controlar primero estas diferencias en las características observadas. Se estima un modelo para identificar cuánto influyen las características consideradas en la probabilidad de tener acceso a energía, luego se usa el puntaje de propensión generado para igualar la muestra.

Como se esperaba, los resultados de este primer paso mostraron que la extensión rural y el crédito aumentan significativamente la probabilidad de utilizar energía en actividades agrícolas. Para Perú y Bolivia, también se observa que los productores con educación superior (categoría base en tales modelos) tenían más probabilidades de utilizar energía en la actividad agrícola que aquellos con menor educación. Con respecto a las clases de tamaño de finca, los productores con un área de 0 a 5 ha tenían menos probabilidades de utilizar cualquier fuente de energía, excepto en Perú.

El resultado del emparejamiento se puede ver en la columna (b) del Cuadro 6, indicando que, luego de realizado el emparejamiento de PSM, las diferencias entre las características observables del grupo tratado (acceso a energía) y el grupo control fueron estadísticamente similares. Así, podemos afirmar que la principal diferencia entre dichos productores, en todos los países analizados, fue si la finca tenía o no acceso a energía.

Cuadro 6. Estadísticas descriptivas de variables clave que explican la probabilidad de tener acceso a energía

| País | Media | (a) Muestra no emparejada | | Muestra emparejada | |
|-----------------|-------|---------------------------|-------------|--------------------|-------------|
| | | Control | Tratamiento | Control | Tratamiento |
| Bolivia | | | | | |
| Extensión | 0.053 | 0.035*** | 0.085 | 0.078 ns | 0.085 |
| Crédito | 0.085 | 0.051*** | 0.147 | 0.143 ns | 0.147 |
| Tiempo de viaje | 3.617 | 3.350*** | 4.104 | 4.133 ns | 4.104 |
| Perú | | | | | |
| Extensión | 0.118 | 0.106*** | 0.123 | 0.128 ns | 0.123 |
| Crédito | 0.116 | 0.077*** | 0.133 | 0.138 ns | 0.133 |
| Tiempo de viaje | 4.512 | 7.510*** | 3.201 | 3.323 ns | 3.201 |
| Colombia | | | | | |
| Extensión | 0.102 | 0.082*** | 0.135 | 0.131 ns | 0.135 |
| Crédito | 0.144 | 0.115*** | 0.193 | 0.195 ns | 0.193 |
| Tiempo de viaje | 2.971 | 3.474*** | 2.141 | 2.166 ns | 2.141 |

Fuente: Silva, Freitas y Neves (2021).

Notas: La extensión y el crédito representan la proporción de productores con acceso a estos servicios. El tiempo de viaje representa el número de horas que se tarda en llegar al pueblo poblado más cercano (con 50.000 habitantes). Además de estas variables, incluimos los efectos fijos estatales y el tamaño de la finca. Para Perú y Bolivia, también controlamos el género, la educación y la edad de los productores.

*** Las medias son estadísticamente diferentes del grupo de control (sin energía) al 1%; ns: las medias son estadísticamente las mismas que las del grupo de control al 1%.

El Cuadro 7 presenta los resultados del efecto del tratamiento energético sobre el valor de la producción para Bolivia, Perú y Colombia. Es importante señalar que, antes del emparejamiento, existían diferencias significativas en el valor de la producción entre los grupos con acceso a energía y sin él para los tres países analizados. Sin embargo, esta diferencia no puede interpretarse como un efecto directo del tratamiento, ya que puede estar relacionada con una mayor infraestructura, niveles educativos, mayor área y otras características (ver columna (a) del cuadro 6). En cualquier caso, es posible verificar que, en promedio, los productores con acceso a energía se asociaron con niveles más altos de valor de producción.

Al controlar tales diferencias en estas características observables, podemos identificar el impacto del uso de energía en el valor de la producción. Se observa que, en todos los países, el acceso a la energía aumentó el valor de la producción agrícola. Para Bolivia, se observa que el efecto del tratamiento energético promedio sobre el valor de la producción de los productores fue de US\$ 778.87. Esto implica que, considerando características similares entre los dos grupos de productores, el acceso a la energía en la actividad agrícola tiene el potencial de elevar el valor de la producción hasta en un 29% (considerando el valor de US\$ 2699 para el grupo sin acceso a la energía). En Colombia, se identifica un impacto de US\$ 520,58 en el valor de la producción con respecto al uso de energía. Si bien el valor de producción promedio fue relativamente superior al observado en Bolivia (US\$ 6901 versus US\$ 3478), la ganancia para el grupo con acceso a esta tecnología fue mayor en la agricultura boliviana. En relación con el efecto de tratamiento para Perú, el acceso a energía se asoció con un incremento promedio de US\$ 319,40 en el valor de la producción.

Es importante señalar que, en el caso específico de Perú, la encuesta utilizada en este trabajo asocia el acceso a la energía con los hogares rurales, y no específicamente con la producción agrícola, lo que puede subestimar el efecto del tratamiento promedio de esta tecnología sobre el valor generado por la actividad agrícola.

Cuadro 7. Efecto del tratamiento energético sobre el valor de la producción (US\$)

| Grupo/país | Bolivia | Perú | Colombia |
|--|----------|----------|----------|
| Muestra no emparejada (Antes PSM) | | | |
| Sin Energía | 1,187.64 | 2,321.37 | 4,603.49 |
| Acceso a Energía | 3,478.41 | 2,909.22 | 6,901.94 |
| Muestra emparejada (Después PSM) | | | |
| Sin Energía (Control) | 2,699.54 | 2,589.78 | 6,381.36 |
| Acceso a Energía (Tratamiento) | 3,478.41 | 2,909.22 | 6,901.94 |
| Promedio Efecto Tratamiento (Efecto Energía) | 778.87 | 319.44 | 520.58 |

Fuente: Silva, Freitas y Neves (2021).

Nota: Todos los efectos del tratamiento son significativos al 1%.

En general, después de controlar las características observables que pueden influir en la probabilidad de acceso a la energía en las actividades agrícolas en Bolivia, Perú y Colombia, los resultados confirman la hipótesis de que estas fincas están asociadas con un mayor rendimiento agrícola. En otras palabras, en todos los países, el acceso a la energía aumenta el valor de la producción agrícola. Estos resultados

muestran que las inversiones que amplían la distribución de fuentes de energía en las zonas rurales tienen el potencial de impulsar la producción agrícola. El acceso a servicios energéticos modernos puede mejorar las condiciones de trabajo en las granjas y facilitar el acceso a servicios, productos y tecnologías de mejor calidad, lo que se traduce en una mayor productividad.

1.4 Producción agrícola y riego en Bolivia, Colombia, Ecuador y Perú⁸

En este trabajo se estima una función de producción a nivel de finca para cuatro países andinos (Bolivia, Perú, Ecuador y Colombia) y se evalúa el papel del riego en la producción agrícola. Para ello, se utilizan datos del Censo Agropecuario de Colombia de 2014 y del Censo Agropecuario de Bolivia de 2013, así como de las encuestas nacionales de Perú y Ecuador de 2017.

En este trabajo, solo se considera a los agricultores que tuvieron valores positivos de producción y tierra para al menos uno de los productos considerados (tierra positiva). Para controlar los valores atípicos, se descartan todas las observaciones en el 1% inferior y el 1% superior de la distribución del valor de producción. Para Ecuador, el tamaño de muestra para la estimación de la Ecuación 1 es 23.239; para Colombia es 1.091.916; para Bolivia, 720.316; y para Perú es 26.966. Las estadísticas descriptivas se muestran en el cuadro siguiente.

Cuadro 8. Estadísticas descriptivas (Colombia, Bolivia, Perú y Ecuador)

| País | Bolivia | Colombia | Ecuador | Perú |
|-----------------------------|----------|----------|---------|--------|
| Valor de Prod. | 3747 | 5449 | 27353 | 8777 |
| Trabajo (suma de empleados) | 6.766 | 6.476 | 4.953 | 14.50 |
| Tierra no irrigada (ha) | 5.862 | 11.07 | 17.70 | 31.67 |
| Tierra irrigada (ha) | 0.294 | 0.3999 | 4.364 | 2.007 |
| Capital (US\$) | - | - | - | 5254 |
| Tamaño finca | | | | |
| 0 - 5 ha | 0.873 | 0.752 | 0.642 | 0.421 |
| 5 -10 ha | 0.0570 | 0.101 | 0.118 | 0.154 |
| 10 – 50 ha | 0.0519 | 0.117 | 0.156 | 0.270 |
| 50 – 100 ha | 0.0103 | 0.0165 | 0.0329 | 0.0625 |
| 100 – 500 ha | 0.00672 | 0.0123 | 0.0455 | 0.0700 |
| 500 – 1000 ha | 0.000869 | 0.00155 | 0.00450 | 0.0122 |
| 1000+ ha | 0.000556 | 0.000998 | 0.00129 | 0.0107 |

Fuente: Silva, Freitas y Neves (2021).

Nota: El valor de la producción de Perú es más alto que el de Bolivia y Colombia porque consideramos todos los productos en la encuesta para Perú, mientras que solo consideramos un número seleccionado de productos para Bolivia y Colombia. El valor de la producción podría ser más alto para Ecuador en comparación con los otros países porque la moneda de Ecuador es el dólar.

⁸ Silva, Freitas y Neves (2021).

También se controla el tamaño de la finca al incluir variables categóricas para el tamaño de la finca, teniendo en cuenta solo los productos utilizados para calcular el valor de producción de cada país. Son: cero a cinco hectáreas; de cinco a 10 ha; 10 a 50 ha; 50 a 100 ha; 100 a 500 ha; 500 a 1000 ha; y más de 1000 ha. Como puede ver en la Tabla 1, la mayoría de las fincas tienen menos de cinco hectáreas.

En el Cuadro 9 se presentan las elasticidades de producción para Colombia, Bolivia, Perú y Ecuador. En promedio, las elasticidades indican que la estimación es consistente con la teoría económica. Para Bolivia, se encuentran elasticidades promedio de 0,21, 0,5 y 0,045 para mano de obra, tierra no irrigada y tierra irrigada, respectivamente.

Cuadro 9. Elasticidades promedio de producción (Colombia, Bolivia, Perú and Ecuador)

| País | ε_{x_1} (Trabajo) | ε_{x_2} (Tierra no irrigada) | ε_{x_3} (Tierra irrigada) | ε_{x_4} (Capital) |
|----------|----------------------------------|---|--|----------------------------------|
| Bolivia | 0.216*** (0.003) | 0.499*** (0.002) | 0.044*** (0.0007) | - |
| Colombia | 0.188*** (0.003) | 0.625*** (0.002) | 0.332*** (0.002) | - |
| Ecuador | 0.606** (0.038) | 0.365*** (0.027) | 0.097*** (0.023) | - |
| Perú | 0.225** (0.014) | 0.281*** (0.009) | 0.071*** (0.005) | 0.521*** (0.002) |

Fuente: Silva, Freitas y Neves (2021).

Nota: Solo calculamos la elasticidad del capital para Perú, dado que solo tomamos el logaritmo de las medidas de capital para este país. Los errores estándar están entre paréntesis y se calcularon mediante el método delta. Significancia estadística: * $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$. Violaciones: Para Bolivia, 1.2%, <1% y <1% de las observaciones para el trabajo (x_1), tierra no irrigada (x_2) y tierra irrigada (x_3) no satisfacen la monotonicidad.; para Perú, 1.3%, <1%, <1% y <1% para x_1 , x_2 , x_3 y x_4 no satisfacen; para Ecuador, <1%, 1% y <1% para x_1 , x_2 y x_3 no satisfacen; y para Colombia, 1.5%, 2% y <1% for x_1 , x_2 y x_3 no satisfacen. La elasticidad de riego promedio para Ecuador para observaciones que satisfacen la monotonicidad es 0.11. La Elasticidad Promedio para tierras regadas se calculó solo para las observaciones con tierras regadas positivas y que no violaron la monotonicidad.

Se evalúan las elasticidades del riego por producción tanto a nivel departamental como nacional, lo que permite hacer inferencias sobre los efectos heterogéneos en cada país. En general, los resultados sugieren que el acceso al riego está asociado con una mayor producción agrícola en los cuatro países. En Colombia, un aumento del 10% en la superficie regada condujo a un aumento del 3,3% en la producción, *ceteris paribus*; el departamento de Norte de Santander, en concreto, muestra un incremento del 4,6% debido a una expansión del 10% en el área de regadío.

En Bolivia, un aumento del 10% en la tierra irrigada conduce a un aumento del 0,4% en la producción, y el departamento de Santa Cruz demuestra el mayor potencial para aumentar la producción: 0,9%. En Ecuador, se encuentra un incremento del 1% en la producción agrícola como resultado de un crecimiento del 10% en la tierra irrigada, con el departamento de Morona Santiago demostrando una respuesta del 4,6% al aumento de la absorción. Finalmente, en Perú la producción agrícola responde a una intensificación del 10% en el área regada con un incremento del 0,7%. El departamento peruano de San Martín tuvo la mayor respuesta en producción: 2,3%.

1.5 Resumen de impactos

En resumen, usaremos los hallazgos de los cuatro estudios anteriores para estimar el impacto de la inversión en energía, carreteras y riego sobre la producción. Así, los impactos por usar son los siguientes:

Cuadro 10. Impacto de la inversión en energía y riego sobre la producción agrícola

| País/Sector | Energía | Riego |
|-----------------|---------|--------|
| Bolivia | 28,85% | 4,00% |
| Colombia | 8,15% | 3,30% |
| Ecuador* | 16,44% | 10,00% |
| Perú | 12,33% | 7,00% |

Fuente: Silva, Freitas y Neves (2021).

*: Energía para Ecuador es el promedio de los otros

3 países pues no existe información.

En el caso del impacto de la inversión en carreteras, se utilizó el promedio del impacto por cuartiles proveniente del estudio de Silva, Freitas y Neves (2021).

Cuadro 11. Impacto de la inversión en carreteras sobre la eficiencia técnica de la producción agrícola

| País/Cuartiles | < 25% | 25% > x < 50% | 50% > x < 75% | x > 75% | Promedio |
|-----------------|--------|---------------|---------------|---------|----------|
| Bolivia | 43,80% | 43,70% | 44,40% | 47,70% | 44,90% |
| Colombia | 53,80% | 53,50% | 55,30% | 54,70% | 54,33% |
| Ecuador | 67,90% | 64,60% | 65,90% | 67,90% | 66,58% |
| Perú | 35,30% | 35,70% | 36,30% | 36,70% | 36,00% |

Fuente: Silva, Freitas y Neves (2021).

2. DESCRIPCIÓN DE LA METODOLOGÍA POR UTILIZAR EN EL CÁLCULO DE LOS COSTOS DE LOS PROYECTOS DE INVERSIÓN Y SUS FUENTES DE DATOS

Para estimar los costos de los proyectos de inversión se requiere identificar las características principales de los proyectos. En el caso de los proyectos de carreteras se necesita conocer como mínimo el estado de la vía, sus características de rodadura, el tráfico actual y proyectado y la longitud.

En el caso de agua potable y saneamiento y energía, se necesitan los datos correspondientes al número de habitantes por cubrir, la tecnología por utilizar y las características geográficas de la zona.

Una vez definidas estas características para cada proyecto de inversión, se trabajará con costos unitarios por sector (ver Cuadro 12) para cada país analizado.

Cuadro 12

| Sector | Costos unitarios |
|------------------------|------------------|
| Electricidad | Por hab. |
| Grava/Pavimento básico | Por km. |
| Riego | Por hectárea |

Fuente: elaboración propia.

A continuación, se muestran las bases de datos por utilizar.

2.1 Agua y saneamiento

Los principales proyectos utilizados como base de información fueron los siguientes: estimación de la brecha de infraestructura para el Plan Nacional de Infraestructura de Perú⁹, estimación de la brecha de infraestructura para el Plan Nacional de Infraestructura de República Dominicana¹⁰; estimaciones de la brecha de infraestructura para los países de la Comunidad Andina (CAN)¹¹ y análisis de los especialistas BID basados en proyectos operativos en Panamá y Paraguay.

⁹ Bonifaz, J. L., R. Urrunaga, J. Aguirre y P. Quequezana (2019). "Brecha de infraestructura en el Perú: Estimación de la brecha de infraestructura de largo plazo 2019- 2038". Monografía N° 838. Banco Interamericano de Desarrollo, Washington, DC.

¹⁰ Bonifaz, J. L., R. Urrunaga, J. Aguirre y P. Quequezana (2020). "Brecha de infraestructura en República Dominicana: Estimación de la brecha de infraestructura de largo plazo 2020- 2039". Monografía N° 848. Banco Interamericano de Desarrollo, Washington, DC.

¹¹ Bonifaz, J. L., R. Urrunaga, J. Aguirre y P. Quequezana. (2020). "Brechas de infraestructura en la región andina". Documento para discusión N° IDB-DP-00807. Banco Interamericano de Desarrollo, Washington, DC.

Adicionalmente, se utilizó información de costos unitarios reportados en Hutton y Varughese (2016). Este estudio fue realizado por el Banco Mundial como *background paper* de su reporte “*Beyond the Gap: How Countries Can Afford the Infrastructure They Need while Protecting the Planet*”. En él se detallan por país los costos unitarios de diferentes soluciones para garantizar el acceso a agua potable y saneamiento bajo diversos estándares de calidad. El estudio incluye información para 24 países de ALC.

El procedimiento para el cálculo y valoración del proyecto de inversión es el siguiente:

- En primer lugar, se determina el número de hogares de la zona por cubrir por el proyecto de inversión.
- En segundo lugar, se multiplica los hogares que requieren acceso por el costo unitario correspondiente.

Para la estimación de la inversión necesaria para el mantenimiento de los servicios de agua potable y saneamiento en óptimo estado, se requiere estimar el valor del stock de infraestructura existente¹². Para esto, en función de la información disponible, se procede a multiplicar el número de hogares, por los costos unitarios previamente definidos. Adicionalmente, el valor del *stock* de infraestructura se amortiza siguiendo un esquema lineal para representar la pérdida de valor de los activos como resultado de su uso a lo largo del tiempo.

Los montos de inversiones anuales necesarias para cubrir el reemplazo de los activos corresponden a anualidades que permiten la reposición del valor neto de los activos existentes considerando una vida útil de 30 años. Por su parte, el costo de mantenimiento de la infraestructura se estimó utilizando un coeficiente del 2% anual sobre el valor estimado de los activos totales, incluyendo las nuevas inversiones¹³.

2.2 Energía

Para determinar los costos unitarios de brindar acceso al servicio eléctrico a las viviendas sin conexión se identificaron tres costos relevantes vinculados a la solución de infraestructura considerada de mayor conveniencia entre las siguientes opciones: costos de conexión y ampliación de redes rurales, costos de conexión a un sistema rural aislado configurado como mini-grid y costos de conexión a un sistema rural aislado de carácter individual. Cada uno de estos costos fue estimado a nivel país.

El procedimiento para el cálculo y valoración de la brecha de infraestructura para garantizar el acceso al servicio de electricidad fue el mismo utilizado en el caso de agua y saneamiento.

¹² Como se sabe, es muy difícil obtener información del *stock* de infraestructura en los diferentes sectores. Así, por ejemplo, resulta difícil cuantificar el *stock* de infraestructura de tratamiento, cuyo valor es altamente sensible al tipo de tecnología utilizado. Por estos motivos, en este ejercicio, una buena aproximación al stock de infraestructura es trabajar con los costos unitarios y las necesidades de los hogares. Más información en BID (2021). “La brecha de infraestructura en América Latina y el Caribe: estimación de las necesidades de inversión hasta 2030 para progresar hacia el cumplimiento de los Objetivos de Desarrollo Sostenible”. Juan Pablo Brichetti, Leonardo Mastronardi, María Eugenia Rivas Amiassorho, Tomás Serebrisky, Ben Solís. Monografía del BID N° 962.

¹³ Es un valor estándar utilizado en la mayoría de activos de infraestructura que implica un período de vida útil de 50 años.

2.3 Carreteras

La información fuente primaria para la determinación de la extensión de las redes primarias, secundarias y terciarias de carreteras fueron las bases de datos de la IRF. Estas proveen información sobre la extensión y el grado de pavimentación de las redes camineras razonablemente actualizadas (2016 en adelante) para 18 países en la región. Las bases de datos no proveen información sobre el estado de las carreteras, ni sobre su transitabilidad a lo largo del año.

Adicionalmente, se condujo un proceso de consulta con los especialistas de la División de Transporte del BID en cada uno de los países de la región para la validación, actualización y ampliación (en particular respecto al estado de las redes de carreteras y de su transitabilidad) de la información disponible. En los casos en los que la información provista por los especialistas aportó mejoras a la información básica obtenida de la IRF, sus observaciones han tenido prioridad y han sido integradas a la base de datos preexistente.

Para el caso de los países con información respecto del estado de las carreteras y de su transitabilidad, se realizó un proceso análogo, teniendo en cuenta lo siguiente:

- Si el estado de las carreteras reportado era bueno/muy bueno, no se previeron intervenciones.
- Si el estado era regular, se consideró que se requería mantenimiento periódico urgente.
- Si el estado era malo/muy malo, se consideró el costo de reconstrucción.

Los criterios de ampliación de la red vial se mantuvieron constantes respecto del grupo de países para los cuales no se contaba con información sobre el estado de la red vial.

El Banco Mundial (2019b) ha liderado esfuerzos para realizar mediciones consistentes del Rural Accessibility Index (RAI) en un amplio grupo de países. Si bien dentro de la muestra de países analizados, el único de la región es Perú, estas estimaciones proveen información valiosa para este ejercicio. Utilizando algoritmos para medir la expansión óptima de la red caminera que incrementa el acceso de la población rural, el Banco Mundial pudo determinar los costos eficientes asociados al logro de metas de cambio del RAI (Mikou et al., 2019). El estudio incluyó la consideración de diversas soluciones (redes pavimentadas, grava, etc.) para alcanzar las metas de cambio del RAI. Las conclusiones principales que resultan relevantes para el presente trabajo de son dos:

- Los costos de desplegar la infraestructura caminera se incrementan exponencialmente a medida que los niveles del RAI aumentan, dado que es necesario alcanzar poblaciones más alejadas y dispersas. Esto refuerza la inviabilidad del objetivo de universalización del acceso rural mediante carreteras e invita a pensar en soluciones alternativas.
- Los costos económicos vinculados a la construcción y al mantenimiento de las redes camineras que busquen el incremento de la cobertura del RAI requieren la consideración de alternativas de bajo costo (soluciones de grava, por ejemplo) para encontrar las soluciones con mayor costo-efectividad.

El trabajo del Banco Mundial realiza un ejercicio teórico de gran utilidad para la determinación del objetivo relevante para este estudio. Para una muestra de 110 países para los que se contaba con información

de carreteras básica (geolocalizada, pero no con información sobre su estado de transitabilidad a lo largo del año), se computaron los RAI correspondientes a cuatro escenarios: 1) considerar las redes primarias como las únicas que proveen cobertura; 2) considerar las redes primarias y secundarias como las únicas que proveen cobertura; 3) considerar las redes primarias, secundarias y terciarias como las únicas que proveen cobertura; 4) considerar las redes primarias, secundarias, terciarias y caminos vecinales como las únicas que proveen cobertura. El hallazgo de este ejercicio teórico fue que, para los países con los que se contaba con una medición efectiva del RAI, los resultados se replicaban razonablemente bien bajo el escenario 2. Esto sugiere que la cobertura está siendo garantizada principalmente por las vías primarias y secundarias.

Para la estimación de la inversión necesaria para el mantenimiento de la red de carreteras en óptimo estado, se requirió estimar el valor del stock de infraestructura existente. Utilizando los costos unitarios y la extensión total de los distintos tipos de redes carreteras por país, se logró obtener un valor que se amortizó siguiendo un esquema lineal para representar la pérdida de valor de los activos como resultado de su uso a lo largo del tiempo.

Se supuso que el mantenimiento rutinario se realiza de manera anual, mientras que el mantenimiento periódico, a la mitad de la vida útil del activo. Los montos de inversiones anuales necesarias para cubrir el reemplazo de los activos corresponden a anualidades que permiten la reposición del valor neto de los activos existentes considerando una vida útil de 30 años.

2.4 Riego

En el caso del sector irrigación, el costo unitario por utilizarse puede ser subdivido de acuerdo con el tamaño de la finca. Así, en un escenario como el peruano, el costo unitario fue proporcionado por el Ministerio de Agricultura (MINAGRI) de Perú, y se calculó como el ratio de inversión de los principales pequeños proyectos del sector y hectáreas beneficiadas, dando lugar a US\$ 2225,13 por hectárea.

Sin embargo, en el caso donde la importancia de parcelas de menor tamaño sea mayor, como Bolivia, Ecuador y Colombia, corresponderá asignar un costo unitario menor. Como se observa del Cuadro 13, más del 85% de las fincas en Colombia y Bolivia y más del 55% en Perú y Ecuador tienen menos de 10 ha. Por eso, los costos unitarios se han estimado mediante una regla de tres siempre de acuerdo con los pesos de las hectáreas entre 0-5 en cada país.

Cuadro 13. Distribución de fincas por tamaño Países andinos

| País | Bolivia | Colombia | Ecuador | Perú |
|----------------|----------|----------|----------|----------|
| 0 - 5 ha | 0.87300 | 0.75200 | 0.64200 | 0.42100 |
| 5 -10 ha | 0.05700 | 0.10100 | 0.11800 | 0.15400 |
| 10 – 50 ha | 0.05190 | 0.11700 | 0.15600 | 0.27000 |
| 100 – 500 ha | 0.00672 | 0.01230 | 0.04550 | 0.07000 |
| 500 – 1000 ha | 0.00087 | 0.00155 | 0.00450 | 0.01220 |
| 1000+ ha | 0.00056 | 0.00100 | 0.00129 | 0.01070 |
| Total | 0.99005 | 0.98485 | 0.96729 | 0.93790 |
| Costo Unitario | 1,375.75 | 1,499.94 | 1,683.49 | 2,225.13 |

3. ESTIMACIÓN DE COSTOS

3.1 Agua

El Cuadro 14 resume los costos recabados, expresados en dólares por habitante servido. Estos valores corresponden al estándar definido por el JMP como básico. Los valores utilizados para el cálculo por fuente se encuentran en el Cuadro 14.

Cuadro 14. Costo unitario por habitante a acceso básico a agua en ámbito rural
Valores de referencia (US\$)

| Zona | Categoría | Agua | Fuente |
|-------|-----------|--------|---|
| Rural | Medio | 144.02 | Media ALC - Banco Mundial Hutton & Varughese (2016) |
| | Alto | 487.92 | Brecha de infraestructura para los países CAN - Dato Colombia |

Fuente: BID (2021).

3.2 Saneamiento

El Cuadro 15 resume los costos recabados, expresados en dólares por habitante servido. Estos valores corresponden a dos de los estándares definidos por el JMP.

Cuadro 15. Costo unitario por habitante a acceso básico a saneamiento
Valores de referencia (US\$)

| Zona | Categoría | Saneamiento | Fuente |
|-------|-----------|-------------|--|
| Rural | Bajo | 96.83 | Media ALC - Banco Mundial Hutton & Varughese (2016) |
| | Medio | 524 | Plan Nacional de Infraestructura de República Dominicana |
| | Alto | 1244.85 | Plan Nacional de Infraestructura del Perú |

Fuente: BID (2021).

3.3 Energía

La determinación de la proporción de hogares que requerían cada tipo de solución se realizó siguiendo los lineamientos del estudio de estimación de brechas de inversión para el logro de acceso universal a electricidad residencial en ALC del Energy Hub. Al agregar las distintas brechas identificadas a nivel país, se obtuvieron costos promedios a nivel latinoamericano, dando como resultado costos unitarios por hogar rural, por hogar urbano y un costo ponderado por país (ver Cuadro 16).

Cuadro 16. Costo de conexión (US\$)

| País | Urbano | Rural | Costo ponderado |
|----------|--------|--------|-----------------|
| Perú | \$450 | \$1910 | \$542 |
| Colombia | \$640 | \$2473 | \$723 |
| Bolivia | \$450 | \$2707 | \$948 |
| Ecuador | n.d. | n.d. | n.d. |

Fuente: BID (2021).

3.4 Carreteras

Los costos unitarios para la construcción y mantenimiento de las redes viales fueron obtenidos de la base de datos ROCKS del Banco Mundial. La base de datos provee costos unitarios de construcción, mantenimiento rutinario y mantenimiento periódico diferenciado por regiones del mundo y por tipo de calzada. La información incorporada en esta base de datos procede de la compilación de los resultados de más de 4800 documentos vinculados a proyectos de construcción y mantenimiento de redes viales que han sido financiados por bancos multilaterales de desarrollo (Banco Mundial, Banco Asiático de Desarrollo, Banco Africano de Desarrollo) en más de 89 países de ingresos bajos y medianos. Los costos unitarios recopilados se presentan en el Cuadro 17, precisándose que para el presente estudio se han utilizado los valores correspondientes a ALC.

Cuadro 17. Costos unitarios de construcción y mantenimiento de redes camineras por tipo de calzada (US\$ por km)

| Costos por tipo de rodadura | Autopista | Camino pavimentado | Upgrade de grava a pavimento | Grava | Mantenimiento rutinario de pavimento | Mantenimiento rutinario de grava | Mantenimiento periódico de pavimento | Mantenimiento periódico de grava |
|-----------------------------|-----------|--------------------|------------------------------|--------|--------------------------------------|----------------------------------|--------------------------------------|----------------------------------|
| América Latina | 4.154.000 | 1.395.000 | 695.000 | 37.000 | 4.000 | 2.000 | 23.000 | 15.000 |

Fuente: Mikou et al., 2019.

Asimismo, al no contar con información de costos unitarios rutinarios y periódicos para autopistas, el presente estudio ha asumido que estos ascienden al doble de los costos incurridos para redes camineras pavimentadas. El Cuadro 18 resume los costos de *upgrade* según la información del Cuadro 17.

Cuadro 18. Costo unitario por km. Valores de referencia (US\$)

| | Categoría | Valor |
|-----------------------|---------------------|-----------|
| Costo unitario por km | Upgrade Highway | 2.759.000 |
| | Pavimento | 1.395.000 |
| | Upgrade a pavimento | 695.000 |
| | Grava | 37.000 |

Fuente: ROCKs del Banco Mundial.

Cuadro 19. Costo de mantenimiento por km. Valores de referencia (US\$)

| Categoría | Tipo de mantenimiento | Valor |
|-----------|-----------------------|--------|
| Highway | Rutinario | 8000 |
| | Periódico | 46.000 |
| Pavimento | Rutinario | 4000 |
| | Periódico | 23.000 |
| Grava | Rutinario | 2000 |
| | Periódico | 15.000 |

Fuente: ROCKs del Banco Mundial.

4. ANÁLISIS DE LOS FACTORES QUE PUEDEN AFECTAR LA CONFIABILIDAD DE DICHA ESTIMACIÓN

Factores generales

Un primer factor que puede incidir en la confiabilidad de esta estimación es que las necesidades de inversión consideran como supuesto que la inversión se realiza de forma eficiente; no obstante, estimaciones recientes del BID (DIA 2020) indican que los costos de las ineficiencias en la ejecución de obras de infraestructura y las demoras evitables pueden aumentar las necesidades de inversión hasta en un 35%.

Otro factor relacionado con el anterior es que las estimaciones se basan fuertemente en las inversiones vinculadas a la construcción de infraestructura; sin embargo, como se ha puesto de manifiesto en el DIA 2020, existen intervenciones regulatorias necesarias para mejorar la provisión de los servicios que exceden la construcción de infraestructura; este tipo de inversiones pueden resultar costo-efectivas, sobre todo en el contexto de la salida de la pandemia del COVID-19 (Serebrisky et al., 2020).

Un tercer factor tiene que ver con los costos unitarios. Cada proyecto de inversión tiene particularidades que dependen de la geografía, la idiosincrasia del país y la tecnología por utilizar. Por eso, los costos unitarios que se usarán en este trabajo son promedios y por lo tanto constituyen aproximaciones de los costos reales del proyecto de inversión.

Relacionado con lo anterior, una cuarta limitación es que este documento representa un ejercicio por estimar de manera razonable aquellos proyectos de inversión que resultan estándar; sin embargo, no contempla otras inversiones necesarias cuya estimación requiere de un análisis más detallado de las condiciones particulares a nivel de país, e inclusive a nivel de ciudad.

Finalmente, se realizaron estimaciones respecto de las necesidades de inversión y mantenimiento basadas en la información disponible y se pudieron efectuar estimaciones razonables sobre el *stock* de infraestructura existente. En algunos sectores las estimaciones realizadas corresponden a montos mínimos indispensables y, por tanto, los requerimientos podrían encontrarse por encima de las estimaciones.

Respecto de la base de datos

- Los censos agrícolas (Bolivia y Colombia) y las encuestas (Ecuador y Perú) para estos países no brindan información sobre la ubicación geográfica de las fincas, lo que limita nuestra capacidad para medir el tiempo de viaje desde la finca hasta la ciudad grande más cercana y el acceso a las carreteras.
- Estos conjuntos de datos solo brindan información durante un año, lo que no nos permite estimar el impacto de las nuevas carreteras o políticas de red en la eficiencia técnica.
- El conjunto de datos de Colombia, Bolivia y Ecuador no proporciona información sobre los precios o el valor de la producción. Los autores usan precios de la FAO para construir la variable de producción para productos seleccionados con el precio disponible. Hay dos problemas con este enfoque; potencialmente no puede representar toda la producción agrícola y asume un precio único para los productores de todo el país.
- La base no brinda información sobre la cantidad de agua aplicada, solo la superficie de tierra regada.
- No existen datos de energía para el caso de Ecuador.

5. IMPACTO DE LA INVERSIÓN EN INFRAESTRUCTURA SOBRE LA PRODUCTIVIDAD DEL SECTOR AGRÍCOLA

5.1 Marco teórico

Un proyecto puede ser evaluado desde el punto de vista privado y desde el punto de vista socioeconómico o social. En el primer caso, a una empresa le interesa saber si le conviene o no realizar determinado proyecto, para ello, se hará la evaluación considerando los beneficios y costos que el proyecto implica. En el segundo caso, a un país o a una región, le interesa saber si como conjunto le conviene o no realizar un proyecto. Hay que tener en cuenta, por lo tanto, los beneficios y costos que perciben todos los habitantes del país o región.

En la evaluación socioeconómica interesa saber si en la situación con el proyecto se prevé que el país alcance un mayor bienestar, respecto de la situación sin él. Los criterios de decisión que se aplican a la evaluación socioeconómica son los mismos que se usan para la evaluación privada, es decir, valor actual neto y tasa interna de retorno. Sin embargo, lo que diferencia a la evaluación socioeconómica es i) la consideración de beneficios y costos no tenidos en cuenta en la evaluación privada y ii) la distinta valoración de beneficios y costos, que son comunes a ambas. En lo que sigue, se discutirá el marco teórico relacionado con la evaluación socioeconómica de proyectos, pero con énfasis en los beneficios.

Los beneficios de un proyecto para el país estarán dados por el valor de los bienes y servicios, que el país dispone, adicionalmente, debido al proyecto. El proyecto produce bienes y servicios, cuyo valor para el país depende de la utilización que se les asigne. Obviamente, si nadie desea utilizar esos bienes y servicios, no tendrán ningún valor y, por lo tanto, no existirán beneficios atribuibles al proyecto. Normalmente, cuando un nuevo proyecto produce una cierta cantidad de un bien o servicio se observa: a) una mayor utilización de este dentro del país, ya sea porque aumenta su consumo (si es un bien de consumo final) o porque permite una mayor producción de otros bienes (si se trata de un insumo) y b) una disminución de la producción de otros productores del mismo bien.

El mayor consumo del bien es indudablemente un beneficio para el país, puesto que proporciona satisfacción directa al consumidor (aparte de las externalidades que pueda ocasionar ese consumo). La mayor producción de otros bienes, que permite la mayor disponibilidad del bien, será también un beneficio para el país, puesto que los bienes adicionales producidos podrán, a su vez, ser consumidos o utilizados para producir más bienes. Por otra parte, la disminución de la producción de otros productos implica liberar recursos productivos, que podrán ser usados en la producción de otros bienes, que también podrán ser consumidos o utilizados en nuevas producciones. En consecuencia, también constituyen beneficios del proyecto.

Al realizar la evaluación socioeconómica, se suelen analizar, en primer lugar, los efectos que los proyectos tienen en los mercados de bienes o servicios, que serían directamente producidos o utilizados por ellos. Estos son los llamados efectos directos de los proyectos, una vez estimados, se agregan los

efectos no tenidos en cuenta al realizar la evaluación privada, es decir, los efectos que el proyecto tendrá sobre la disponibilidad de bienes no considerados al estimar los efectos directos. Son los llamados efectos indirectos.

Para estimar los beneficios directos, se parte de las cantidades de bienes o servicios que produciría el proyecto (por unidad de tiempo). En la evaluación económica, se parte de las cantidades de bienes o servicios que el proyecto produciría en cada unidad de tiempo futura y se comparan con la situación sin proyecto. El beneficio de un periodo B_t se puede expresar en forma matemática:

$$B_t = \sum_i P_i X_i$$

donde X_i es la cantidad del bien o servicio i que produciría el proyecto y P_i es el precio neto que recibiría el dueño del proyecto por cada unidad de ese bien o servicio.

Cuando se han establecido los beneficios correspondientes a todos los periodos que incluye el horizonte de análisis del proyecto, se obtiene el valor actual de los beneficios del proyecto, según la siguiente expresión:

$$VA = \sum_t \frac{B_t}{(1 + \delta)^t}$$

donde δ es la tasa de descuento que representa el costo de oportunidad del capital o la tasa de descuento para el país o región, que está tratando de decidir si ejecutar o no el proyecto.

Por otro lado, un proyecto puede ocasionar también efectos indirectos (positivos o negativos), que deben ser incluidos en la evaluación socioeconómica. Estos son los efectos que se observan por el hecho de que, como consecuencia del proyecto, se ven afectados otros mercados. Son los mercados de bienes, relacionados con los que el proyecto tiene relación de bienes sustitutos o de bienes complementarios. Así, cuando se realiza un proyecto y este impacta positivamente sobre la producción de bienes relacionados, se obtiene un beneficio que se puede cuantificar. En otras palabras, para que existan efectos indirectos, se requiere que como consecuencia del proyecto se esperen cambios en la actividad relacionada y que esa actividad esté distorsionada por la ausencia del proyecto.

Para llegar a estimar los efectos indirectos correspondientes a un determinado periodo, habrá que analizar los diversos mercados de bienes relacionados con los bienes que serían producidos y utilizados por el proyecto. Los efectos indirectos totales para el periodo se obtienen sumando los efectos en cada mercado relacionado y se llaman beneficios indirectos.

5.2 Supuestos y parámetros del modelo

Para realizar la evaluación de alguna inversión en energía, carreteras o riego, es necesario contar con la siguiente información:

- a) El horizonte de evaluación del proyecto¹⁴.
- b) El costo de oportunidad establecido como referencia para la evaluación o la tasa de descuento.
- c) Los beneficios y costos del proyecto.

¹⁴ En nuestro ejercicio se ha considerado un horizonte de tiempo de 15 años.

5.2.1 Tasa de descuento¹⁵

La tasa social de descuento (δ) mide el costo efectivo para la sociedad de utilizar capital en una inversión y es utilizada para descontar los beneficios y los costos futuros de un proyecto de inversión gubernamental y convertirlos en valores presentes. Su utilización permite no solamente determinar la conveniencia de ejecutar un determinado proyecto, sino de compararlo con otros proyectos, cuyos flujos tienen estructuras temporales distintas y establecer un *ranking* de prioridades de inversión, cuando los recursos disponibles son escasos.

Se calcula como el promedio ponderado de la tasa de rentabilidad de la inversión privada (π) y la tasa de preferencia cronológica, considerada como la tasa promedio de interés en el sistema financiero (r).

$$\delta = \theta\pi + (1 - \theta)r$$

Las ponderaciones utilizadas, θ y $(1 - \theta)$, se obtienen a partir de las elasticidades de la inversión y del ahorro privado, respecto a la tasa de interés, η y ε , respectivamente, de acuerdo con las siguientes ecuaciones:

$$\theta = \frac{\eta}{\eta + \varepsilon} \quad y \quad 1 - \theta = \frac{\varepsilon}{\eta + \varepsilon}$$

donde η está considerada como el valor absoluto de la elasticidad de inversión, es decir, está expresada como un valor positivo.

Por lo tanto, la tasa social de descuento puede quedar expresada de la siguiente manera:

$$\delta = \theta\pi + (1 - \theta)r = \frac{\eta\pi + \varepsilon r}{\eta + \varepsilon}$$

Ambas elasticidades son estimadas mediante un modelo multiecuacional, que depende de la inversión privada, el ahorro real, la tasa de interés real de los depósitos en moneda nacional, el Producto Bruto Interno, el ingreso disponible, la inversión pública o del Gobierno y el ratio importaciones-exportaciones (esta última variable representa el déficit en cuenta corriente).

Debe considerarse que los recursos que obtiene el Gobierno para financiar un nuevo proyecto de inversión pública provienen, en parte, del mercado financiero doméstico, y, en parte, del mercado financiero internacional. Los recursos captados en el mercado doméstico son extraídos, a través de un alza en la tasa de interés, tanto del ahorro de los consumidores como de los préstamos que estaban destinados al consumo.

En ese sentido, la tasa de descuento por utilizar en los proyectos debiera ser la tasa de descuento utilizada en los sistemas de inversión pública de cada país analizado. Para efectos de este ejercicio se utilizará una tasa de descuento de 11%¹⁶.

¹⁵ Parámetro que se puede modificar en la hoja de cálculo.

¹⁶ Es la tasa de descuento que se utiliza en los proyectos de infraestructura en el sistema de inversión pública en Perú. Consideramos que es un valor razonable para realizar el ejercicio. En todo caso, este parámetro puede ser modificado para efectos de alguna simulación.

5.2.2 Valor incremental neto de la producción o beneficios del proyecto

El Valor Bruto de la Producción (VBP) es la resultante de la multiplicación de la producción total de cada uno de los cultivos de la Cédula por sus respectivos precios de compra en chacra. El Valor Neto de la Producción (VNP) se determina restando los costos de producción de la Cédula de Cultivo al VBP. Al igual que el VBP, en este caso el VNP también deberá ser determinado tanto para la situación actual como para las diferentes alternativas de solución (en caso de existir), para poder posteriormente realizar la evaluación económica y social del proyecto. El Valor Incremental Neto de la Producción (VINP) es el ingreso adicional que obtienen los beneficiarios directos por la ejecución del proyecto.

En nuestro ejercicio utilizaremos el VINP como medida de los beneficios del proyecto. Se debe remarcar que para estimar el VINP se utilizan las elasticidades obtenidas de los estudios que aparecen en la sección 1.5.

5.2.3 Evaluación económica del proyecto

La evaluación económica del proyecto es la herramienta principal con que cuenta un estudio de preinversión para descartar aquellas alternativas de solución consideradas que, desde el punto de vista económico, no son de beneficio. La condición indispensable para que una alternativa pueda ser considerada como solución del proyecto es que su evaluación económica demuestre que es rentable. En consecuencia, todas aquellas alternativas de solución que han mostrado rentabilidad, se encuentran aptas para ser seleccionadas como medios de solución del proyecto.

Las metodologías más comúnmente usadas en evaluaciones económicas de proyectos de inversión pública son la de Costo-Beneficio y Costo-Efectividad. La metodología de Costo-Beneficio es aquella donde se comparan los beneficios versus los costos de un proyecto donde tanto los beneficios como los costos se expresan en términos monetarios (una sola unidad de comparación), y con base en la construcción de un flujo de caja permite la aplicación de indicadores como el Valor Actual Neto (VAN), la Tasa Interna de Retorno (TIR) y el Ratio Beneficio/Costo (B/C).

La metodología de Costo-Efectividad es aquella que permite establecer el costo de una, algunas o todas las variables determinantes del proyecto. Esta metodología se utiliza cuando, indefectiblemente, no es posible obtener los beneficios en términos monetarios. Permite elegir aquella alternativa que muestra el menor costo posible respecto de algunas variables determinantes del proyecto.

Para nuestro ejercicio, utilizaremos el análisis costo-beneficio.

5.2.4 Costos utilizados

En el Cuadro 24 se muestran los costos utilizados.

Cuadro 24. Costos unitarios¹⁷

| Sector | Costos unitarios | Valor (US\$) | | | |
|----------------------------|------------------|----------------|----------------|----------------|----------------|
| | | Bolivia | Colombia | Ecuador | Perú |
| Energía | Por conexión | 948 | 723 | n.d. | 542 |
| Grava/ Pavimento básico | Por km. | 37,000/695,000 | 37,000/695,000 | 37,000/695,000 | 37,000/695,000 |
| Riego | Por hectárea | 1,375.75 | 1,499.94 | 1,683.49 | 2,225.13 |

Fuentes: Varias.

5.3 Resultados

La base de datos es la misma que utilizaron Silva, Freitas y Neves (2021), cuyas características se describen en la primera sección.

En el caso de Perú se utilizó la Encuesta Provincial a Hogares Rurales (EPHR) de 2014 (dado que la Encuesta Nacional Agropecuaria de 2017 no proporcionó información sobre el acceso/uso de la energía). Para Bolivia, el Censo Agropecuario de 2013 (Censo Agropecuario 2013) y para Colombia, el Censo Agropecuario de 2014 (3er Censo Nacional Agropecuario 2014). La falta de datos sobre energía para Ecuador y la falta de información para Venezuela limitan el análisis de la variable para estos países.

Para Bolivia, se usa el Censo Agropecuario de 2013, que tiene información sobre 871.927 fincas (unidades de producción agropecuaria - UPA) con 2.760.238,6 hectáreas de área sembrada. Para Colombia, se utiliza el Censo Agropecuario de 2014 (3er Censo Nacional Agropecuario 2014), que tiene información sobre 2.913.163 observaciones, de las cuales el 81,4% son fincas (unidades de producción agropecuaria) con áreas de 108.993.335 hectáreas.

En el Cuadro 25 se muestran las observaciones utilizadas en cada sector por país. Asimismo, en el Anexo 1 se muestran las estadísticas descriptivas de las variables para cada país y sector.

¹⁷ Parámetros tomados de la sección 3 y que se pueden modificar en la hoja de cálculo.

Cuadro 25. Número de observaciones

| País | Energía y Carreteras | Riego |
|-----------------|----------------------|-----------|
| Bolivia | 733.010 | 747.172 |
| Colombia | 1.091.916 | 1.091.916 |
| Ecuador | 23.433 | 23.433 |
| Perú | 78.919 | 26.985 |

Fuente: elaboración propia.

5.3.1 Energía

En América Latina, alrededor de 17 millones de personas aún viven sin electricidad en áreas rurales (IEA, 2017). En Bolivia, Colombia y Perú, 758.000, 147.200 y 1.64 millones de personas, respectivamente, viven sin electricidad (FAO, 2020). Según Eras-Almeida et al. (2019), muchas de estas personas viven en comunidades pequeñas, aisladas, dispersas y de bajos ingresos. Eras-Almeida et al. (2019) demostraron que es posible llevar electricidad a zonas rurales de países como Bolivia y Perú como estrategia de desarrollo, mezclando el uso de tecnologías tradicionales y nuevas, que son más baratas y sostenibles.

En general, Freitas et al. (2021) encuentran que el acceso a la energía se asocia con una mayor producción agrícola y se correlaciona positivamente con los servicios de extensión rural y el crédito, pero se asocia negativamente con la proximidad a ciudades de 50.000 habitantes o más (o densidades de población de 1.5).

Para realizar este análisis de impacto, se seleccionaron las fincas que no tienen energía eléctrica. Se identificó el número de hogares a partir de la densidad reportada en la finca y se le imputó un costo de conexión¹⁸. Para el caso del beneficio, se aplicó el impacto porcentual¹⁹ al valor de la producción actual de las fincas sin energía eléctrica.

En el Cuadro 26 se muestra el resultado acumulado por cada país. Este se obtiene sumando el impacto dentro de cada municipio/provincia/departamento para las fincas sin energía eléctrica en cada país.

Cuadro 26. Análisis costo-beneficio general. Energía (millones de US\$)

| País | Costo | Beneficio (VIPN) | Beneficio-Costo | Rentabilidad (%) |
|-----------------|-------|------------------|-----------------|------------------|
| Bolivia | 308 | 1,167 | 859 | 278 |
| Colombia | 1,455 | 1,745 | 290 | 20 |
| Ecuador* | n.d. | n.d. | n.d. | n.d. |
| Perú | 14 | 49 | 34 | 242 |

*: No se obtuvo datos para Ecuador.

Fuente: elaboración propia.

¹⁸ Parámetro que se puede modificar en la hoja de cálculo.

¹⁹ Parámetro que se puede modificar en la hoja de cálculo.

Bolivia

En el caso de Bolivia, se realizó una simulación del análisis costo-beneficio para cada municipio (ver Anexo 2). Los resultados globales para las fincas de los municipios que no poseen energía eléctrica indican que abastecer de energía eléctrica a todas las fincas del país genera un costo de US\$ 308 millones y un beneficio adicional de US\$ 1167 millones medido sobre el valor del ingreso de la producción neta (VIPN). La rentabilidad de la inversión es de 278%, considerando que el impacto utilizado es de 28,85% de la energía sobre la productividad del sector.

De los 332 municipios analizados, solo 48 presentan ratio beneficio-costo negativo y 284 presentan rentabilidad positiva. La lista de municipios se encuentra en el Anexo 2.

Colombia

En el caso de Colombia, se realizó una simulación del análisis costo-beneficio para cada departamento por la disponibilidad de datos (ver Anexo 2). Los resultados globales para las fincas de los departamentos que no poseen energía eléctrica indican que abastecer de energía eléctrica a todas las fincas del país genera un costo de US\$ 1455 millones y un beneficio adicional de US\$ 1745 millones medido sobre el valor del ingreso de la producción neta (VIPN). La rentabilidad de la inversión es de 20%, considerando que el impacto utilizado es de 8,15% de la energía sobre la productividad del sector.

De los 33 departamentos analizados, 15 presentan ratio beneficio-costo negativo y 18 presentan rentabilidad positiva. La lista de departamentos se encuentra en el Anexo 2.

Perú

En el caso de Perú, se realizó una simulación del análisis costo-beneficio para cada municipio (ver Anexo 2). Los resultados globales para las fincas de los municipios que no poseen energía eléctrica indican que abastecer de energía eléctrica a todas las fincas de la muestra genera un costo de US\$ 14 millones²⁰ y un beneficio adicional de US\$ 49 millones medido sobre el valor del ingreso de la producción neta (VIPN). La rentabilidad de la inversión es de 242%, considerando que el impacto utilizado es de 12,33% de la energía sobre la productividad del sector.

De los 1382 municipios distritales analizados, 273 presentan ratio beneficio-costo negativo y 1109 presentan rentabilidad positiva. La lista de distritos se encuentra en el Anexo 2.

5.3.2 Carreteras

Para estimar el impacto de la red de carreteras en la probabilidad de acceder a la extensión y al crédito, Freitas et al. (2021) usan el tiempo promedio de viaje de un país a la ciudad más cercana de 50.000 personas (o 1500 o más habitantes por kilómetro cuadrado), según Weiss et al. (2018) como proxy de la red de carreteras. Esta medida captura no solo la distancia, sino también la calidad de las carreteras y los servicios de transporte. Encuentran que el tiempo promedio hasta la ciudad grande más cercana para Perú es 213 minutos, para Bolivia es 228 minutos, para Colombia es 212 minutos y para Ecuador es 153 minutos.

Para realizar nuestro análisis se seleccionaron los tiempos de viaje de cada finca al centro poblado de más de 50.000 habitantes. Luego se multiplicó el tiempo de viaje por una velocidad promedio de 20 km/hora²¹ para obtener una distancia promedio entre la finca y el centro poblado. Con este resultado

²⁰ Se debe tomar en cuenta que la solución es sobre la base de energía solar.

²¹ Parámetro que se puede modificar en la hoja de cálculo.

se obtuvo la distancia en kilómetros de la carretera por construir. Para cada carretera por construir se aplicó un costo por km: US\$ 39.000 en caso de grava y/o US\$ 695.000 en caso de pavimento, más sus respectivos costos de mantenimiento rutinario y preventivo (BID, 2020)²². Para el caso del beneficio, se aplicó el impacto porcentual²³ al valor de la producción actual de las fincas sin carretera.

En el Cuadro 27 se muestra el resultado acumulado por cada país. Este se obtiene sumando dentro de cada municipio las fincas sin carretera en cada país.

Cuadro 27. Análisis beneficio-costo general. Carreteras (millones de US\$)

| País | Costo | Beneficio (VIPN) | Beneficio-Costo | Rentabilidad (%) |
|----------------------------------|-----------|------------------|-----------------|------------------|
| Bolivia (Grava/pavimento) | 926/17405 | 4726 | 3799/-12.679 | 410/- |
| Colombia (Pavimento) | 3738 | 22.171 | 18.432 | 493 |
| Ecuador (Grava/Pavimento) | 35/665 | 3073 | 3038/2408 | 8680/362 |
| Perú (Grava) | 4930 | 557 | -4372 | - |

Fuente: elaboración propia.

Bolivia

En el caso de Bolivia, se realizó una simulación del análisis costo-beneficio para cada municipio (ver Anexo 3). Los resultados globales para las fincas de los municipios indican que proveer de caminos a todas las fincas del país genera un costo de US\$ 926 millones en el caso de la solución mediante grava y US\$ 17.405 millones en el caso de pavimento. El beneficio adicional es de US\$ 4726 millones. El análisis beneficio-costo es de US\$ 3799 millones medido sobre el valor del ingreso de la producción neta (VIPN) en el caso de grava y de US\$ -12.679 millones en el caso de pavimento. La rentabilidad de la inversión es de 410% en el caso de grava y negativa en el caso de pavimento. Se ha considerado un impacto de 44,90% de la carretera sobre la productividad del sector.

De los 332 municipios analizados, 292 presentan ratio beneficio-costo negativo para el caso de pavimento y solo 69 presentan rentabilidad negativa en el caso de grava. La lista de municipios y sus rentabilidades se encuentra en el Anexo 3.

Colombia

En el caso de Colombia, se realizó una simulación del análisis costo-beneficio para cada Departamento por la disponibilidad de datos (ver Anexo 3). Los resultados globales para las fincas de los departamentos indican que proveer de caminos a todas las fincas del país genera un costo de US\$ 3738 millones en el caso de la solución de pavimento. El beneficio adicional es de US\$ 22.171 millones medido sobre el valor del ingreso de la producción neta (VIPN) en el caso de pavimento. La rentabilidad de la inversión es de 493%. Se ha considerado un impacto de 54,33% de la carretera sobre la productividad del sector.

De los 33 departamentos analizados, solo 7 presentan ratio beneficio-costo negativo y 26 presentan rentabilidad positiva. La lista de departamentos se encuentra en el Anexo 3.

²² Parámetros modificables en la hoja de cálculo.

²³ Parámetro que se puede modificar en la hoja de cálculo.

Ecuador

En el caso de Ecuador, se realizó una simulación del análisis costo-beneficio para cada provincia (ver Anexo 3). Los resultados globales para las fincas de las provincias indican que proveer de caminos a todas las fincas del país genera un costo de US\$ 35 millones en el caso de la solución mediante grava y US\$ 665 millones en el caso de pavimento. El beneficio adicional es de US\$ 3073 millones. El análisis costo-beneficio medido sobre el valor del ingreso de la producción neta (VIPN) es de US\$ 3038 en el caso de grava y de US\$ 2408 millones en el caso de pavimento. La rentabilidad de la inversión es de 86 veces en el caso de grava y de 3.6 veces en el caso de pavimento. Se ha considerado un impacto de 66,58% de la carretera sobre la productividad del sector.

De las 24 provincias analizadas, solo 7 presentan ratio beneficio-costos negativo para el caso de pavimento y en el caso de grava todos presentan rentabilidad positiva. La lista de municipios y sus rentabilidades se encuentra en el Anexo 3.

Perú

En el caso de Perú, se realizó una simulación del análisis costo-beneficio para cada municipio (ver Anexo 3). Los resultados globales para las fincas de los municipios indican que proveer de caminos a todas las fincas del país genera un costo de US\$ 4930 millones en el caso de la solución mediante grava. El beneficio adicional es de US\$ 557 millones medido sobre el valor del ingreso de la producción neta (VIPN) en el caso de grava. La rentabilidad de la inversión es negativa. Se ha considerado un impacto de 44,90% de la carretera sobre la productividad del sector.

De los 1876 municipios analizadas, 1784 presentan ratio beneficio-costos negativo para el caso de pavimento y solo 92 presentan rentabilidad positiva. La lista de municipios y sus rentabilidades se encuentra en el Anexo 3.

5.3.3 Riego

Para realizar este análisis se seleccionaron las fincas que corresponden a áreas no irrigadas.

Cuadro 28. Áreas no irrigadas (hectáreas)

| País | Área |
|-----------------|------------|
| Bolivia | 2.412.335 |
| Colombia | 12.082.068 |
| Ecuador | 414.002 |
| Perú | 854.721 |

Fuente: elaboración propia.

a. Primera aproximación: aumento de productividad sobre la producción actual

Se identificó el área y se le imputó un costo de irrigación por hectárea²⁴. Para el caso del beneficio, se aplicó el impacto porcentual²⁵ al valor de la producción actual de las fincas sin irrigación. Las rentabilidades resultan negativas debido al alto costo imputado al servicio de irrigación y al rendimiento por hectárea actual de las tierras.

En el Cuadro 29 se muestra el resultado acumulado por cada país. Este se obtiene sumando dentro de cada municipio/departamento las fincas sin irrigación en cada país.

Cuadro 29. Análisis beneficio-costo general. Riego (millones de US\$)

| País | Costo | Beneficio (VIPN) | Beneficio-costo |
|----------|--------|------------------|-----------------|
| Bolivia | 3318 | 715 | -2603 |
| Colombia | 18.122 | 1097 | -17.025 |
| Ecuador | 696 | 252 | -445 |
| Perú | 1901 | 53 | -1849 |

Fuente: elaboración propia.

Bolivia

En el caso de Bolivia, se realizó una simulación del análisis costo-beneficio para cada municipio (ver Anexo 4). Los resultados globales para las fincas de los municipios indican que irrigar las fincas del país que no tienen irrigación genera un costo de US\$ 3318 millones. El beneficio adicional por irrigar dichas áreas es de US\$ 715 millones. El análisis beneficio-costo es de US\$ 2603 millones. La rentabilidad de la inversión es negativa. Se ha considerado un impacto de 4% de la finca irrigada sobre la productividad del sector.

De los 332 municipios analizados, 310 presentan ratio beneficio-costo negativo para el caso de pavimento y solo 22 presentan rentabilidad positiva. La lista de municipios y sus rentabilidades se encuentra en el Anexo 4.

Colombia

En el caso de Colombia, se realizó una simulación del análisis costo-beneficio para cada departamento (ver Anexo 4). Los resultados globales para las fincas de los municipios indican que irrigar las fincas del país que no tienen irrigación genera un costo de US\$ 18.122 millones. El beneficio adicional por irrigar dichas áreas es de US\$ 1097 millones. El análisis beneficio-costo es de US\$ -17.025 millones. La rentabilidad de la inversión es negativa. Se ha considerado un impacto de 3,3% de la finca irrigada sobre la productividad del sector.

De los 33 departamentos analizados, todos presentan ratio beneficio-costo negativo. La lista de departamentos y sus rentabilidades se encuentra en el Anexo 4.

²⁴ Parámetro que se puede modificar en la hoja de cálculo.

²⁵ Parámetro que se puede modificar en la hoja de cálculo.

Ecuador

Para Ecuador, usamos la Encuesta de Superficie y Producción Agropecuaria de 2017, una encuesta nacional sobre fincas que representa 12.4 millones de hectáreas en agricultura, 2.4 millones de hectáreas en pastos cultivados y 2.3 millones en cultivos. Utilizando el factor de expansión proporcionado en el conjunto de datos, encontramos que 356.911 y 698,309 hectáreas de cultivos temporales y permanentes, respectivamente, fueron irrigadas (31% de las fincas usaban riego para cultivos temporales y 30% de las fincas irrigadas para cultivos permanentes).

En el caso de Ecuador, se realizó una simulación del análisis costo-beneficio para cada provincia (ver Anexo 4). Los resultados globales para las fincas de los municipios indican que irrigar las fincas del país que no tienen irrigación genera un costo de US\$ 696 millones. El beneficio adicional por irrigar dichas áreas es de US\$ 252 millones. El análisis beneficio-costo es de US\$ -445 millones. La rentabilidad de la inversión es negativa. Se ha considerado un impacto de 7% de la finca irrigada sobre la productividad del sector.

De las 24 provincias analizadas, todas presentan ratio beneficio-costo negativo, excepto una (Carchi). La lista de provincias y sus rentabilidades se encuentra en el Anexo 4.

Perú

En el caso de Perú, se realizó una simulación del análisis costo-beneficio para cada municipalidad distrital (ver Anexo 4). Los resultados globales para las fincas de los municipios indican que irrigar las fincas del país que no tienen irrigación genera un costo de US\$ 1901 millones. El beneficio adicional por irrigar dichas áreas es de US\$ 53 millones. El análisis beneficio-costo es de US\$ -1849 millones. La rentabilidad de la inversión es negativa. Se ha considerado un impacto de 7% de la finca irrigada sobre la productividad del sector.

De las 886 municipalidades distritales analizadas, 859 presentan ratio beneficio-costo negativo. La lista de municipalidades y sus rentabilidades se encuentra en el Anexo 4.

b. Segunda aproximación: habilitación de tierras eriazas con aumento de productividad

Otro ejercicio que se puede realizar es cuando las tierras no irrigadas empiezan a producir al nivel de las tierras irrigadas. En ese caso, el VIPN corresponde a la nueva producción de la tierra irrigada. Se ha considerado un cultivo con un rendimiento promedio de 15 TM/h y un precio del mercado interno de US\$ 1.5 por kg. Asimismo, se ha considerado un ingreso neto de costos de 15% y un horizonte de tiempo de 15 años (Bonifaz et al., 2011).

Cuadro 30. Beneficio neto de áreas no irrigadas

| País | Área irrigada (hectáreas) | Beneficio neto (millones de US\$) |
|----------|---------------------------|-----------------------------------|
| Bolivia | 2.412.335 | 8142 |
| Colombia | 12.082.068 | 40.777 |
| Ecuador | 414.002 | 1397 |
| Perú | 854.721 | 2885 |

Cuadro 31. Análisis beneficio-costo general. Riego (millones de US\$)

| País | Costo | Beneficio (VIPN) | Beneficio-costo | Rentabilidad (%) |
|----------|--------|------------------|-----------------|------------------|
| Bolivia | 3318 | 8142 | 4824 | 145 |
| Colombia | 18.122 | 40.777 | 22.655 | 125 |
| Ecuador | 696 | 1397 | 701 | 101 |
| Perú | 1901 | 2885 | 984 | 51 |

Fuente: elaboración propia.

Como se observa del cuadro anterior, el análisis beneficio-costo y las rentabilidades con esta segunda aproximación resultan positivos en todos los países.

6. RECOMENDACIONES DE POLÍTICA PÚBLICA

Debido a que los censos agrícolas (Bolivia y Colombia) y las encuestas (Ecuador y Perú) utilizados en este informe no brindan información sobre la ubicación geográfica de las fincas, no es posible definir si la finca está cercana a una carretera o a una red eléctrica. Por eso las estimaciones del análisis beneficio-costos son conservadoras pues se estarían sobreestimando los costos de la infraestructura. En ese sentido, sería deseable tener la ubicación de las fincas y contrastarlo con el mapa vial y las redes eléctricas en cada país.

Dada esta limitación, sugerimos que las encuestas o censos agrícolas provean información georreferenciada de las fincas y del mapa de carreteras. Asimismo, sería importante tener acceso de datos sobre la provisión de energía en las fincas. Esta información permitiría estimar con mayor precisión los costos de provisión de estas infraestructuras y debieran ser recolectados y sistematizados por los censos agropecuarios de cada país.

Por estas razones, las recomendaciones de política pública de este informe deben ser tomadas con precaución.

6.1 Energía

Las políticas encaminadas a minimizar el déficit en el acceso a la energía eléctrica en las zonas rurales de los países andinos deben considerar los escenarios de escasez de recursos públicos y de sostenibilidad económica y ambiental. Los proyectos que involucran iniciativas fuera de la red y generación de energía a partir de fuentes renovables y desechos son cada vez más comunes. Estos proyectos suelen ser menos costosos que la construcción de megaplantas y redes que atraviesan el país (Eras-Almeida et al., 2019; Peters et al., 2019). Iniciativas como Luz en Casa y Microfranquicias para el Acceso a Energías Limpias, puestas en práctica en Perú y Bolivia, muestran que es posible profundizar la distribución eléctrica teniendo en cuenta las realidades locales y los proyectos no tradicionales del sector. Ejemplos de estos son la energía eólica y fotovoltaica.

Por ejemplo, en Bolivia, menos del 8,5% de los agricultores usaban electricidad en la producción agrícola; el 54,5% utilizó leña. La falta de acceso a las fuentes de energía también podría haber restringido la capacidad de los agricultores para acceder a la información o utilizar mejores insumos. En general, Freitas et al. (2021) encuentran que el acceso a la energía se asocia con una mayor producción agrícola y se correlaciona positivamente con los servicios de extensión rural y el crédito, pero se asocia negativamente con la proximidad a ciudades de 50.000 habitantes o más (o densidades de población de 1.5).

En nuestro análisis, el impacto de introducir energía eléctrica en las fincas tiene una rentabilidad claramente positiva sobre la producción agrícola en todos los países analizados.

6.2 Carreteras

Los agricultores de Bolivia, Ecuador, Colombia y Perú se enfrentan a una red de carreteras deficiente y escasa, lo que potencialmente restringe la producción agrícola. Estos países tienen menor densidad de carreteras en comparación con los países desarrollados. Los tiempos promedio de viaje a centros con 50.000 habitantes o más oscilan entre 2.5 horas en Ecuador y 4 horas en Perú, pero en algunos lugares de Colombia, el viaje por carretera puede demorar hasta 90 horas.

Freitas et al. (2021) encuentran que la red de carreteras disminuye la ineficiencia técnica de la finca, en el sentido de que la densidad de la carretera (tiempo de viaje) disminuye (aumenta) la ineficiencia técnica de la finca. Sus resultados indican que las fincas en Perú tienen una eficiencia técnica promedio de 0,64, en Bolivia de 0,55, en Colombia de 0,46 y en Ecuador de 0,34. La estimación de los determinantes de la ineficiencia confirma la hipótesis de que la red de carreteras afecta la capacidad de una finca para administrar los insumos en la producción. Encuentran que la ineficiencia disminuye con la densidad de carreteras y aumenta con el tiempo de viaje para Perú, Bolivia y Ecuador.

En nuestro informe, se están sobreestimando las inversiones en carreteras pues no se tiene la ubicación geográfica de la finca. En ese sentido, es rentable solo en Colombia y Ecuador proponer soluciones de pavimento básico, pero en Ecuador la solución propuesta corresponde a un camino de grava. En cambio, en Perú, las inversiones en carreteras superan el valor neto de la productividad, por lo que no sería rentable invertir en carreteras exclusivamente para mejorar la productividad agrícola.

6.3 Riego

En Bolivia, el 32% de los productores utilizan riego en su producción; sin embargo, esto solo se traduce en una aplicación de la tecnología en el 7% del área plantada. En Colombia, el porcentaje de fincas con riego es mayor, con un 33,3%. La proporción de agricultores ecuatorianos que adoptan el riego es del 31%, aunque este número no representa todo el potencial de riego en la región. Esta es también la situación en Perú, donde el 21% de los pequeños productores y el 52% de los grandes productores han adoptado el riego (Freitas et al., 2021).

La adopción del riego tiene el potencial de duplicar los rendimientos y, como resultado, los ingresos. Esta tecnología ha sido ampliamente discutida como una forma de aumentar la producción para satisfacer la creciente demanda global; sin embargo, la adopción es costosa para las fincas. Varias políticas públicas se han enfocado en el riego, con el objetivo de reducir los costos directos de las fincas mediante la provisión de infraestructura (por ejemplo, PRONAREC en Bolivia) y subsidios (por ejemplo, PSI para riego por goteo en Perú). Sus resultados apoyan la hipótesis de que el riego aumenta el valor de la producción: todas las elasticidades son estadísticamente significativas.

Solo en el caso de habilitación de tierras eriazas con un importante aumento de productividad, sería beneficioso realizar inversiones en riego. En esos casos, el análisis de la situación sin proyecto corresponde a una situación donde el valor de la producción es cero. Así, cuando se realiza el ejercicio de estimar el VIPN correspondiente a la nueva producción de la tierra irrigada, utilizando algunos supuestos para la cédula de cultivo considerado sus precios, se encuentra que la inversión es rentable para todos los países andinos.

ANEXO 1

BASE DE DATOS: ESTADÍSTICAS DESCRIPTIVAS

Energía y carreteras

| Colombia | | | | | |
|--------------|-----------|----------|-----------|----------|----------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| P_DEPTO2 | 1,091,916 | 39.31376 | 24.99517 | 5 | 99 |
| credito | 1,091,916 | .1442629 | .3513563 | 0 | 1 |
| energ_eletr4 | 1,091,916 | .3772818 | .4847066 | 0 | 1 |
| assist2 | 1,091,916 | .1016397 | .302174 | 0 | 1 |
| pop_density | 1,091,916 | 109.124 | 367.3034 | .073452 | 14083.98 |
| timemean_h~s | 1,083,026 | 2.97101 | 6.550357 | 0 | 90.70854 |
| vbp_estima~D | 1,091,916 | 5449.365 | 11159.92 | 1.442454 | 112907.7 |
| cat_timeme~r | 1,091,916 | 2.516185 | 1.120204 | 1 | 4 |
| area5 | 1,091,916 | .7515093 | .432138 | 0 | 1 |
| area5a10 | 1,091,916 | .1005251 | .300699 | 0 | 1 |
| area10a50 | 1,091,916 | .1165401 | .3208716 | 0 | 1 |
| area50a100 | 1,091,916 | .0165333 | .1275147 | 0 | 1 |
| area100a500 | 1,091,916 | .012348 | .1104335 | 0 | 1 |
| area500a1000 | 1,091,916 | .0015459 | .0392876 | 0 | 1 |
| area1000m | 1,091,916 | .0009982 | .0315793 | 0 | 1 |
| grupo_area | 1,091,916 | 1.446316 | .8879418 | 1 | 7 |
| assist_cre~t | 1,091,916 | .033085 | .1788585 | 0 | 1 |
| no_assist_~t | 1,091,916 | .1797327 | .3839648 | 0 | 1 |
| _pscore | 885,193 | .0406239 | .0251757 | 1.76e-07 | .1178594 |
| _treated | 885,193 | .0406239 | .1974175 | 0 | 1 |
| _support | 885,193 | 1 | 0 | 1 | 1 |
| _weight | 102,304 | .7030028 | .828551 | .2 | 39.2 |
| _vbp_estim~D | 35,960 | 4857.098 | 7349.489 | 20.22518 | 89380.63 |
| _id | 1,091,916 | 545958.5 | 315209.1 | 1 | 1091916 |
| _n1 | 35,960 | 581916.2 | 199593.5 | 9 | 849199 |

| Colombia | | | | | |
|----------|---------|----------|-----------|-----|--------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| _n2 | 35,960 | 581917.2 | 199593.5 | 10 | 849200 |
| _n3 | 35,960 | 581918.1 | 199593.5 | 11 | 849201 |
| _n4 | 35,960 | 581918.9 | 199593.5 | 12 | 849202 |
| _n5 | 35,960 | 581919.8 | 199593.4 | 13 | 849203 |
| _nn | 885,193 | .2031195 | .9870873 | 0 | 5 |

| | | | | | |
|-------|--------|----------|----------|---|----------|
| _pdif | 35,960 | 3.65e-08 | 5.28e-07 | 0 | .0000541 |
|-------|--------|----------|----------|---|----------|

| Bolivia | | | | | |
|--------------|---------|----------|-----------|-----|------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| DEPTO_REF_ID | 733,010 | 3.60511 | 1.973843 | 1 | 9 |
| PROVIN_REF~D | 733,010 | 44.65501 | 29.0283 | 1 | 112 |
| MUNIC_REF_ID | 733,010 | 147.2459 | 85.233 | 1 | 339 |
| AREA_REF_ID | 733,010 | 787.6329 | 483.3119 | 1 | 1753 |
| CANTON_REF~D | 733,010 | 1028.79 | 643.4147 | 1 | 2291 |

| | | | | | |
|--------------|---------|----------|----------|---|--------|
| COMUNIDAD_~D | 733,010 | 9869.672 | 6957.099 | 1 | 32381 |
| UPA_REF_ID | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| dpto | 0 | | | | |
| id_departa~o | 733,010 | 3.60511 | 1.973843 | 1 | 9 |
| ndepto | 0 | | | | |

| | | | | | |
|--------------|---------|----------|----------|---|----|
| prov | 0 | | | | |
| id_provincia | 733,010 | 7.459102 | 4.635569 | 1 | 20 |
| nprovin | 0 | | | | |
| mun | 0 | | | | |
| id_municipio | 733,010 | 2.227828 | 1.43189 | 1 | 8 |

| | | | | | |
|---------|---|--|--|--|--|
| nmunic | 0 | | | | |
| area | 0 | | | | |
| canton | 0 | | | | |
| comunal | 0 | | | | |
| upa | 0 | | | | |

| | | | | | |
|--------------|---------|----------|----------|---|--------|
| PERSONAL_R~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| BOSQMONT_R~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| CULTIVOS_R~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| APOCRED_RE~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |

| Bolivia | | | | | |
|--------------|---------|----------|-----------|----------|----------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| OTROSDAT_R~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| ENERGIA_RE~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| CAZAPEZCA_~D | 414 | 247.4734 | 148.0041 | 1 | 522 |
| PRACAGRI_R~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| FUENTEAGUA~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| GANADERIA_~D | 733,010 | 419472.5 | 247996.2 | 1 | 871927 |
| prod_age | 732,959 | 48.98086 | 15.97025 | 8 | 98 |
| prod_sex | 733,010 | .7604289 | .426822 | 0 | 1 |
| credit | 731,191 | .0850311 | .2789282 | 0 | 1 |
| cat_area | 733,010 | 1.197153 | .595937 | 1 | 7 |
| fundamental | 733,010 | .7835323 | .411837 | 0 | 1 |
| ensmedio | 733,010 | .0708026 | .256495 | 0 | 1 |
| medioup | 733,010 | .1456651 | .3527704 | 0 | 1 |
| pop_density | 733,010 | 45.26242 | 181.9103 | .2439024 | 2439.062 |
| timemean_h~s | 733,010 | 3.616806 | 3.368321 | .0171429 | 26.023 |
| vbp_tot_USD | 733,010 | 1996.969 | 4511.137 | 6.276839 | 52255.63 |
| cat_timeme~r | 733,010 | 2.491149 | 1.115987 | 1 | 4 |
| assistenci~a | 733,010 | .0528642 | .2237625 | 0 | 1 |
| IDPROV2 | 733,010 | 367.9701 | 196.4702 | 101 | 905 |
| energ_eletr4 | 733,010 | .3534045 | .4780273 | 0 | 1 |
| assist_cre~t | 733,010 | .0096684 | .0978514 | 0 | 1 |
| no_assist_~t | 733,010 | .1182781 | .3229373 | 0 | 1 |

| Perú | | | | | |
|--------------|--------|----------|-----------|-------|----------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| conglomerado | 0 | | | | |
| c_code | 78,919 | 22320.07 | 14293.09 | 18 | 46658 |
| nseiv | 0 | | | | |
| v_code | 78,919 | 133.8257 | 136.874 | 1 | 1574 |
| hogar | 0 | | | | |
| ubigeo | 0 | | | | |
| DES_CODE | 79,101 | 110845 | 71054.36 | 10101 | 250401 |
| prod_sex2 | 78,919 | .924999 | .2633945 | 0 | 1 |
| prod_age2 | 78,919 | 53.19996 | 16.34951 | 14 | 98 |
| p_educ1 | 78,919 | .0570585 | .2319558 | 0 | 1 |
| p_educ2 | 78,919 | .0014699 | .0383108 | 0 | 1 |
| p_educ3 | 78,919 | .154893 | .3618049 | 0 | 1 |
| p_educ4 | 78,919 | .1731269 | .3783593 | 0 | 1 |
| p_educ5 | 78,919 | .2439463 | .4294634 | 0 | 1 |
| p_educ6 | 78,919 | .258835 | .4379976 | 0 | 1 |
| p_educ7 | 78,919 | .0260013 | .1591402 | 0 | 1 |
| p_educ8 | 78,919 | .0393441 | .1944136 | 0 | 1 |
| p_educ9 | 78,919 | .0239486 | .15289 | 0 | 1 |
| p_educ10 | 78,919 | .0207808 | .1426507 | 0 | 1 |
| p_educ11 | 78,919 | .0005955 | .0243967 | 0 | 1 |
| se_credito | 78,919 | .1154855 | .319609 | 0 | 1 |
| area2 | 78,919 | .0685006 | .2526046 | 0 | 1 |
| area3 | 78,919 | .0642684 | .2452321 | 0 | 1 |
| area4 | 78,919 | .0094274 | .0966366 | 0 | 1 |
| area5 | 78,919 | .0102257 | .1006044 | 0 | 1 |
| area6 | 78,919 | .003738 | .0610253 | 0 | 1 |
| area7 | 78,919 | .0134568 | .1152212 | 0 | 1 |
| energ | 78,919 | .6945983 | .4605803 | 0 | 1 |
| vbp_USD | 78,919 | 2729.129 | 19557.82 | 0 | 2169719 |
| id_dpt | 79,067 | 11.02447 | 7.115366 | 1 | 25 |
| timemean_h~r | 79,067 | 4.512044 | 6.978985 | 0 | 67.32124 |
| pop_density | 79,067 | 57.87592 | 372.4905 | 0 | 23628.67 |
| se_assist2 | 79,101 | .1177229 | .3222818 | 0 | 1 |

| Ecuador (carreteras) | | | | | |
|----------------------|--------|----------|-----------|----------|----------|
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| Identifica~r | 0 | | | | |
| us_prov | 0 | | | | |
| us_cant | 0 | | | | |
| us_parr | 0 | | | | |
| us_estr | 0 | | | | |
| us_segm | 0 | | | | |
| us_ncues | 0 | | | | |
| us_numt | 23,433 | 1 | 0 | 1 | 1 |
| us_numl | 23,433 | 1 | 0 | 1 | 1 |
| total_labor | 23,319 | 4.952571 | 43.86686 | 1 | 1820 |
| vbp_total | 23,433 | 27399.08 | 105865.9 | 1.481037 | 1418425 |
| Area_Total | 23,433 | 21.83114 | 85.05805 | 0 | 3396.4 |
| Area_T~Irrig | 23,433 | 4.386496 | 32.70387 | 0 | 1500 |
| Area_T~irrig | 23,433 | 17.66748 | 78.66441 | 0 | 3396.4 |
| roads_dens~l | 23,353 | .7831031 | .7946538 | 0 | 8.290048 |
| timemean_h~s | 23,353 | 1.21828 | 1.63851 | .0031447 | 33.42132 |
| CODE_CANT | 0 | | | | |
| CODE_CANT2 | 23,319 | 1016.166 | 766.8283 | 101 | 9004 |
| seirrig | 23,433 | .2659497 | .441847 | 0 | 1 |
| cat_area | 23,433 | 1.739129 | 1.1723 | 1 | 7 |
| qnt_tot_fe~g | 23,433 | 25281.84 | 1974036 | 0 | 2.61e+08 |
| qnt_tot_npk | 23,433 | 1775.498 | 27608.29 | 0 | 2139000 |
| qnt_tot_nit | 23,433 | 510.653 | 14618.6 | 0 | 2134400 |
| qnt_tot_ins | 23,433 | 6.609862 | 75.81109 | 0 | 4000 |
| qnt_tot_fun | 23,433 | 11.7168 | 312.627 | 0 | 39999.89 |

Riego Colombia

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|-----------|----------|-----------|----------|----------|
| P_DEPTO2 | 1,091,916 | 39.31376 | 24.99517 | 5 | 99 |
| credito | 1,091,916 | .1442629 | .3513563 | 0 | 1 |
| energ_eletr4 | 1,091,916 | .3772818 | .4847066 | 0 | 1 |
| maq_Fumi | 1,091,916 | .080073 | 9.77218 | 0 | 10000 |
| maq_Guada | 1,091,916 | .4003751 | 25.81116 | 0 | 19998 |
| maq_Pica | 1,091,916 | .1033706 | 10.7688 | 0 | 10000 |
| maq_Moto | 1,091,916 | .057019 | 1.979434 | 0 | 1001 |
| maq_Trat | 1,091,916 | .0172797 | 1.006809 | 0 | 1000 |
| maq_colhei | 1,091,916 | .00111 | .1270618 | 0 | 101 |
| assist2 | 1,091,916 | .1016397 | .302174 | 0 | 1 |
| roads_de~100 | 1,083,026 | 31.41387 | 32.61719 | 0 | 748.7278 |
| pop_density | 1,091,916 | 109.124 | 367.3034 | .073452 | 14083.98 |
| timemean_h~s | 1,083,026 | 2.97101 | 6.550357 | 0 | 90.70854 |
| vbp_estima~D | 1,091,916 | 5449.365 | 11159.92 | 1.442454 | 112907.7 |
| total_labor | 1,091,916 | 6.475624 | 19.75769 | 1 | 7502 |
| total_area | 1,091,916 | 11.46428 | 164.0941 | .0005 | 84591.27 |
| total~Nirrig | 1,091,916 | 11.06502 | 163.9641 | 0 | 84588.15 |
| total~irrig | 1,091,916 | .3992631 | 4.523115 | 0 | 389.1414 |
| grupo_area | 1,091,916 | 1.446316 | .8879418 | 1 | 7 |

Riego Bolivia

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|---------|----------|-----------|----------|----------|
| credit | 745,300 | .0870294 | .2818783 | 0 | 1 |
| estoque_ca-e | 747,172 | 15.70744 | 152.0018 | 0 | 28000 |
| Aare-irrig2 | 747,172 | .2889425 | 4.635726 | 0 | 1950 |
| Aare-irrig2 | 747,172 | 3.228622 | 35.90512 | 0 | 9820 |
| cat_area | 747,172 | 1.222447 | .6697932 | 1 | 7 |
| labor | 567,722 | 7.520822 | 25.95332 | 1 | 5776 |
| CODE | 747,172 | 37176.81 | 19893.4 | 10101 | 90503 |
| maqui | 747,172 | 2.964079 | 4.020324 | 0 | 177 |
| build | 747,172 | .2867345 | 1.08178 | 0 | 104 |
| equip | 747,172 | 234.8422 | 1760.701 | 0 | 69993 |
| bird | 747,172 | .8342015 | 2.233741 | 0 | 198 |
| roads_dens-a | 747,172 | .1149445 | .0731794 | 0 | 1.01 |
| pop_density | 747,172 | 45.60487 | 183.3497 | .2439024 | 2439.062 |
| timemean_h-s | 747,172 | 3.62994 | 3.371239 | .0171429 | 26.023 |
| vbp_tot_USD | 747,172 | 3895.968 | 115985.6 | .0002775 | 8.00e+07 |
| assistenci-a | 747,172 | .0543008 | .2266103 | 0 | 1 |
| energ_eletri | 747,172 | .3588906 | .4796754 | 0 | 1 |
| area_tot_p-t | 747,172 | 2.53344 | 47.18093 | 0 | 10000 |
| non_irrig_~a | 747,172 | 5.762062 | 61.06076 | 0 | 10004 |
| total_land | 747,172 | 6.051004 | 61.44847 | 0 | 10004 |

Perú

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|--------|----------|-----------|------|----------|
| credit | 26,966 | .135059 | .3417929 | 0 | 1 |
| seirrig2 | 26,966 | .5200994 | .4996051 | 0 | 1 |
| timemean_h~r | 26,941 | 4.575068 | 6.925626 | 0 | 46.8409 |
| roads_de~100 | 26,941 | 35.23582 | 33.60976 | 0 | 484.5917 |
| pop_density | 26,941 | 85.8202 | 355.5116 | 0 | 14470.74 |
| ID_PROV2 | 26,966 | 1288.167 | 723.6961 | 101 | 2504 |
| labor_ch3 | 26,966 | 14.4964 | 81.80564 | 1 | 9005 |
| area_tot2 | 26,985 | 33.68099 | 627.1209 | .004 | 90277.41 |
| area_irrig2 | 26,985 | 2.007055 | 90.69832 | 0 | 13670.7 |
| vbp_estima~2 | 26,985 | 8776.617 | 53057.35 | 15 | 1125180 |
| grupo_area | 26,966 | 2.286509 | 1.397442 | 1 | 7 |
| non_irrig_~a | 26,985 | 31.67394 | 545.4804 | .004 | 76606.7 |
| capital_ch3 | 26,985 | 17514.31 | 708157.6 | 0 | 1.05e+08 |
| capital_ch3b | 26,985 | 5439.71 | 459166 | 0 | 7.13e+07 |
| d_notonlyc~p | 26,985 | 0 | 0 | 0 | 0 |

Riego Ecuador

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|--------|----------|-----------|----------|----------|
| vbp_total | 23,433 | 27399.08 | 105865.9 | 1.481037 | 1418425 |
| Area_Total | 23,433 | 21.83114 | 85.05805 | 0 | 3396.4 |
| Area_I~Irrig | 23,433 | 4.386496 | 32.70387 | 0 | 1500 |
| Area_I~irrig | 23,433 | 17.66748 | 78.66441 | 0 | 3396.4 |
| roads_dens~l | 23,353 | .7831031 | .7946538 | 0 | 8.290048 |
| timemean_h~s | 23,353 | 1.21828 | 1.63851 | .0031447 | 33.42132 |
| CODE_CANT | 0 | | | | |
| CODE_CANT2 | 23,319 | 1016.166 | 766.8283 | 101 | 9004 |
| seirrig | 23,433 | .2659497 | .441847 | 0 | 1 |
| cat_area | 23,433 | 1.739129 | 1.1723 | 1 | 7 |
| qnt_tot_fe~g | 23,433 | 25281.84 | 1974036 | 0 | 2.61e+08 |
| qnt_tot_npk | 23,433 | 1775.498 | 27608.29 | 0 | 2139000 |
| qnt_tot_nit | 23,433 | 510.653 | 14618.6 | 0 | 2134400 |
| qnt_tot_ins | 23,433 | 6.609862 | 75.81109 | 0 | 4000 |
| qnt_tot_fun | 23,433 | 11.7168 | 312.627 | 0 | 39999.89 |

ANEXO 2

ENERGÍA

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|-----------------------|-------------|------------------|-----------------|
| Municipios | | | |
| Acasio | \$209,169 | \$2,681,746 | \$2,365,890 |
| Achacachi | \$3,905,020 | \$7,785,280 | \$3,773,572 |
| Achocalla | \$1,723,257 | \$1,734,933 | -\$95,012 |
| Aiquile | \$363,524 | \$11,935,776 | \$11,465,565 |
| Alalay | \$54,609 | \$2,624,362 | \$2,463,066 |
| Alto Beni | \$187,406 | \$3,036,300 | \$2,742,207 |
| Ancoraimes | \$1,442,392 | \$3,126,221 | \$1,577,141 |
| Antequera | \$85,888 | \$502,917 | \$310,342 |
| Anzaldo | \$251,043 | \$1,794,241 | \$1,436,511 |
| Apolo | \$31,628 | \$4,120,869 | \$3,982,554 |
| Arapampa | \$92,937 | \$1,083,093 | \$883,469 |
| Arani | \$565,285 | \$1,123,143 | \$451,171 |
| Arbieto | \$1,218,033 | \$493,975 | -\$830,745 |
| Arque | \$466,068 | \$2,310,268 | \$1,737,513 |
| Ascensión de Guarayos | \$33,143 | \$1,957,703 | \$1,817,873 |
| Atocha | \$12,055 | \$366,035 | \$247,293 |
| Aucapata | \$241,869 | \$1,009,926 | \$661,370 |
| Ayata | \$332,333 | \$2,512,910 | \$2,073,889 |
| Ayo Ayo | \$212,966 | \$3,416,670 | \$3,097,016 |
| Azurduy | \$159,759 | \$5,653,100 | \$5,386,653 |
| Batallas | \$831,004 | \$5,841,596 | \$4,903,905 |
| Baures | \$2,466 | \$1,031,999 | \$922,846 |
| Belén de Andamarca | \$6,634 | \$192,575 | \$79,254 |
| Bella Flor | \$1,738 | \$161,144 | \$52,718 |
| Bermejo | \$344,090 | \$413,333 | -\$37,444 |
| Betanzos | \$1,618,573 | \$11,534,818 | \$9,809,558 |
| Bolívar | \$270,485 | \$3,086,669 | \$2,709,497 |
| Bolpebra | \$1,941 | \$78,636 | -\$29,992 |
| Boyube | \$3,360 | \$274,405 | \$164,358 |
| Buena Vista | \$121,916 | \$2,600,075 | \$2,371,472 |
| Cabezas | \$418,970 | \$9,609,824 | \$9,084,167 |
| Cairoma | \$357,749 | \$6,303,337 | \$5,838,901 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|----------------------|--------------|------------------|-----------------|
| Municipios | | | |
| Caiza "D" | \$52,662 | \$476,848 | \$317,499 |
| Cajuata | \$321,760 | \$4,544,667 | \$4,116,221 |
| Calacoto | \$73,457 | \$4,526,688 | \$4,346,544 |
| Calamarca | \$485,068 | \$3,879,968 | \$3,288,212 |
| Callapa | \$117,860 | \$1,762,576 | \$1,538,029 |
| Camargo | \$216,380 | \$2,912,309 | \$2,589,243 |
| Camiri | \$196,582 | \$974,393 | \$671,123 |
| Capinota | \$1,069,249 | \$6,038,833 | \$4,862,896 |
| Caquiaviri | \$379,994 | \$4,656,962 | \$4,170,281 |
| Caracollo | \$366,053 | \$3,629,757 | \$3,157,016 |
| Caranavi | \$1,866,628 | \$18,524,916 | \$16,551,601 |
| Carangas | \$2,579 | \$81,657 | -\$27,609 |
| Caraparí | \$95,078 | \$4,196,274 | \$3,994,509 |
| Caripuyo | \$429,399 | \$3,791,758 | \$3,255,672 |
| Carmen Rivero Tórrez | \$4,374 | \$1,338,038 | \$1,226,977 |
| Catacora | \$391 | \$9,872 | -\$97,206 |
| Chacarilla | \$76,858 | \$876,263 | \$692,718 |
| Challapata | \$598,835 | \$5,238,218 | \$4,532,695 |
| Chaquí | \$694,677 | \$1,584,403 | \$783,039 |
| Charagua | \$9,952 | \$3,606,009 | \$3,489,370 |
| Charaña | \$2,130 | \$360,943 | \$252,125 |
| Charazani | \$111,506 | \$2,097,955 | \$1,879,762 |
| Chayanta | \$571,754 | \$4,196,244 | \$3,517,803 |
| Chimoré | \$238,237 | \$9,503,329 | \$9,158,405 |
| Chipaya | \$2,133 | \$13,372 | -\$95,449 |
| Choque Cota | \$5,755 | \$257,841 | \$145,398 |
| Chua Cocani | \$1,096,454 | \$664,264 | -\$538,877 |
| Chulumani | \$2,866,381 | \$11,708,250 | \$8,735,182 |
| Chuma | \$743,685 | \$3,613,164 | \$2,762,791 |
| Chuquiuhuta | \$364,432 | \$406,684 | -\$64,435 |
| Ckochas | \$246,614 | \$4,810,410 | \$4,457,110 |
| Cliza | \$8,656,390 | \$1,448,198 | -\$7,314,879 |
| Cobija | \$1,062,407 | \$592,597 | -\$576,497 |
| Cocapata | \$95,240 | \$16,829,476 | \$16,627,548 |
| Cochabamba | \$18,151,176 | \$500,946 | -\$17,756,918 |
| Coipasa | \$12,436 | \$782,581 | \$663,457 |
| Colcapirhua | \$5,020,629 | \$329,311 | -\$4,798,005 |
| Colcha "K" | \$10,776 | \$2,353,426 | \$2,235,963 |
| Collana | \$189,313 | \$1,347,882 | \$1,051,881 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|-----------------------|--------------|------------------|-----------------|
| Municipios | | | |
| Colomi | \$762,440 | \$5,227,485 | \$4,358,357 |
| Colpa Bélgica | \$29,524 | \$167,990 | \$31,779 |
| Colquechaca | \$1,537,965 | \$9,992,222 | \$8,347,570 |
| Colquencha | \$502,425 | \$2,670,926 | \$2,061,814 |
| Colquiri | \$722,729 | \$4,077,086 | \$3,247,669 |
| Comanche | \$105,794 | \$2,062,986 | \$1,850,505 |
| Comarapa | \$56,428 | \$4,162,848 | \$3,999,732 |
| Combaya | \$339,211 | \$421,933 | -\$23,966 |
| Concepción | \$10,661 | \$1,642,088 | \$1,524,739 |
| Copacabana | \$2,008,914 | \$1,033,874 | -\$1,081,728 |
| Coripata | \$1,056,357 | \$9,065,191 | \$7,902,146 |
| Corocoro | \$271,532 | \$4,021,498 | \$3,643,279 |
| Coroico | \$651,888 | \$6,757,586 | \$5,999,011 |
| Corque | \$60,828 | \$1,025,284 | \$857,769 |
| Cotagaita | \$274,536 | \$8,331,226 | \$7,950,003 |
| Cotoca | \$1,127,828 | \$1,983,005 | \$748,490 |
| Cruz de Machacamarca | \$6,291 | \$67,716 | -\$45,262 |
| Cuatro Cañadas | \$101,122 | \$3,693,334 | \$3,485,525 |
| Cuchumuela | \$166,120 | \$316,828 | \$44,020 |
| Cuevo | \$57,903 | \$1,439,750 | \$1,275,160 |
| Culpina | \$177,306 | \$11,578,754 | \$11,294,761 |
| Curahuara de Carangas | \$10,527 | \$833,369 | \$716,155 |
| Curva | \$23,423 | \$615,101 | \$484,990 |
| Desaguadero | \$523,311 | \$639,743 | \$9,745 |
| El Alto | \$19,246,039 | \$1,187,843 | -\$18,164,884 |
| El Choro | \$121,530 | \$2,128,251 | \$1,900,034 |
| El Puente | \$136,032 | \$9,035,034 | \$8,792,315 |
| El Torno | \$2,490,993 | \$7,346,900 | \$4,749,220 |
| El Villar | \$41,483 | \$3,768,310 | \$3,620,139 |
| Entre Ríos | \$1,141,235 | \$35,583,446 | \$34,335,523 |
| Escara | \$3,597 | \$15,447 | -\$94,838 |
| Escoma | \$1,179,958 | \$1,407,483 | \$120,837 |
| Esmeralda | \$6,719 | \$22,683 | -\$90,723 |
| Eucaliptus | \$30,284 | \$127,399 | -\$9,572 |
| Exaltación | \$318 | \$684,501 | \$577,496 |
| Fernández Alonso | \$672,769 | \$9,498,749 | \$8,719,293 |
| Filadelfia | \$2,166 | \$331,941 | \$223,087 |
| Gral. Saavedra | \$66,717 | \$306,057 | \$132,652 |
| Guanay | \$76,100 | \$3,065,253 | \$2,882,465 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|------------------|--------------|------------------|-----------------|
| Municipios | | | |
| Guaqui | \$523,559 | \$1,247,889 | \$617,642 |
| Guayaramerín | \$117,351 | \$1,615,990 | \$1,391,951 |
| Gutiérrez | \$50,292 | \$1,588,313 | \$1,431,334 |
| Huacaraje | \$2,836 | \$789,399 | \$679,876 |
| Huacareta | \$78,565 | \$4,137,330 | \$3,952,078 |
| Huacaya | \$7,229 | \$849,469 | \$735,553 |
| Huachacalla | \$92,947 | \$8,998 | -\$190,636 |
| Huanuni | \$1,299,102 | \$1,563,158 | \$157,370 |
| Huari | \$238,098 | \$6,375,432 | \$6,030,647 |
| Huarina | \$1,230,503 | \$2,740,141 | \$1,402,951 |
| Huatajata | \$2,857,486 | \$284,514 | -\$2,679,659 |
| Huayllamarca | \$166,946 | \$2,887,576 | \$2,613,942 |
| Humanata | \$300,983 | \$1,521,600 | \$1,113,929 |
| Ichoca | \$80,150 | \$1,392,922 | \$1,206,085 |
| Icla | \$166,438 | \$3,268,451 | \$2,995,326 |
| Incahuasi | \$226,673 | \$4,228,731 | \$3,895,371 |
| Independencia | \$625,489 | \$8,144,180 | \$7,412,004 |
| Ingavi | \$279 | \$114,902 | \$7,937 |
| Inquisivi | \$118,327 | \$7,192,622 | \$6,967,607 |
| Irupana | \$367,366 | \$5,266,554 | \$4,792,501 |
| Ixiamas | \$1,576 | \$672,571 | \$564,308 |
| Jesús de Machaca | \$664,710 | \$3,754,408 | \$2,983,011 |
| La Asunta | \$1,167,387 | \$13,840,020 | \$12,565,946 |
| La Guardia | \$1,182,319 | \$1,247,388 | -\$41,618 |
| La Paz | \$10,000,681 | \$1,986,668 | -\$8,120,700 |
| La Rivera | \$5,263 | \$464,871 | \$352,920 |
| Lagunillas | \$15,283 | \$747,840 | \$625,870 |
| Laja | \$2,188,964 | \$9,399,838 | \$7,104,186 |
| Las Carreras | \$24,196 | \$2,589,142 | \$2,458,259 |
| Llallagua | \$1,880,349 | \$2,698,199 | \$711,162 |
| Llica | \$19,391 | \$3,100,181 | \$2,974,102 |
| Loreto | \$691 | \$198,551 | \$91,173 |
| Luribay | \$726,380 | \$4,993,874 | \$4,160,806 |
| Machacamarca | \$90,040 | \$677,722 | \$480,995 |
| Macharetí | \$19,952 | \$7,485,524 | \$7,358,884 |
| Magdalena | \$1,510 | \$1,501,015 | \$1,392,817 |
| Mairana | \$140,835 | \$3,233,527 | \$2,986,004 |
| Malla | \$186,614 | \$1,018,052 | \$724,751 |
| Mapiri | \$51,893 | \$763,751 | \$605,171 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|---------------------|-------------|------------------|-----------------|
| Municipios | | | |
| Mecapaca | \$760,983 | \$3,591,962 | \$2,724,291 |
| Mineros | \$358,500 | \$1,384,851 | \$919,664 |
| Mizque | \$937,128 | \$11,780,410 | \$10,736,595 |
| Mocomoco | \$1,336,536 | \$2,674,784 | \$1,231,561 |
| Mojinete | \$4,609 | \$90,556 | -\$20,740 |
| Mojocoya | \$72,424 | \$3,030,035 | \$2,850,923 |
| Monteagudo | \$189,217 | \$7,352,617 | \$7,056,713 |
| Montero | \$89,368 | \$37,798 | -\$158,257 |
| Moro Moro | \$20,895 | \$2,397,855 | \$2,270,273 |
| Morochata | \$620,956 | \$10,197,034 | \$9,469,391 |
| Muyupampa | \$104,108 | \$10,080,846 | \$9,870,051 |
| Nazacara de Pacajes | \$21,136 | \$83,823 | -\$44,000 |
| Nueva Esperanza | \$27 | \$2,427 | -\$104,288 |
| Ocurí | \$598,662 | \$3,907,943 | \$3,202,593 |
| Okinawa Uno | \$56,676 | \$1,009,628 | \$846,264 |
| Omereque | \$24,077 | \$2,057,478 | \$1,926,714 |
| Oruro | \$1,611,317 | \$181,451 | -\$1,536,554 |
| Padcaya | \$123,297 | \$9,055,324 | \$8,825,340 |
| Padilla | \$79,497 | \$4,453,227 | \$4,267,042 |
| Pailón | \$125,670 | \$5,596,491 | \$5,364,134 |
| Palca | \$654,852 | \$3,652,651 | \$2,891,111 |
| Palos Blancos | \$82,374 | \$2,595,981 | \$2,406,919 |
| Pampa Aullagas | \$25,629 | \$1,558,578 | \$1,426,261 |
| Pampa Grande | \$65,038 | \$3,687,692 | \$3,515,967 |
| Papel Pampa | \$168,904 | \$1,685,096 | \$1,409,505 |
| Pasorapa | \$37,918 | \$8,385,782 | \$8,241,177 |
| Patacamaya | \$757,091 | \$3,452,742 | \$2,588,964 |
| Pazña | \$68,652 | \$1,095,653 | \$920,313 |
| Pelechuco | \$21,156 | \$1,084,492 | \$956,649 |
| Pocoata | \$1,500,157 | \$7,312,320 | \$5,705,475 |
| Pocona | \$248,487 | \$7,091,535 | \$6,736,360 |
| Pojo | \$104,792 | \$8,865,364 | \$8,653,884 |
| Poopó | \$248,763 | \$1,722,199 | \$1,366,749 |
| Porco | \$103,269 | \$397,328 | \$187,371 |
| Poroma | \$502,975 | \$6,056,915 | \$5,447,253 |
| Porongo | \$414,656 | \$1,603,602 | \$1,082,259 |
| Portachuelo | \$49,060 | \$439,029 | \$283,282 |
| Porvenir | \$62,657 | \$511,524 | \$342,180 |
| Postrer Valle | \$12,870 | \$1,533,709 | \$1,414,152 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|--------------------------|--------------|------------------|-----------------|
| Municipios | | | |
| Potosí | \$7,546,929 | \$2,439,117 | -\$5,214,499 |
| Presto | \$186,531 | \$4,342,940 | \$4,049,722 |
| Puerto Carabuco | \$1,308,089 | \$2,016,228 | \$601,451 |
| Pucará | \$17,438 | \$1,786,270 | \$1,662,145 |
| Pucarani | \$1,500,606 | \$10,157,251 | \$8,549,958 |
| Puerto Acosta | \$1,376,482 | \$1,719,621 | \$236,452 |
| Puerto Gonzalo Moreno | \$14,638 | \$439,984 | \$318,659 |
| Puerto Pérez | \$2,274,669 | \$1,509,077 | -\$872,279 |
| Puerto Quijarro | \$6,310 | \$47,968 | -\$65,030 |
| Puerto Rico | \$4,757 | \$273,198 | \$161,754 |
| Puerto Siles | \$32 | \$24,313 | -\$82,407 |
| Puerto Suárez | \$6,493 | \$425,905 | \$312,724 |
| Puerto Villarroel | \$2,066,399 | \$33,093,386 | \$30,920,299 |
| Puna | \$821,699 | \$6,435,425 | \$5,507,039 |
| Punata | \$10,202,640 | \$3,100,955 | -\$7,208,372 |
| Quiabaya | \$194,420 | \$815,737 | \$514,630 |
| Quillacas | \$81,025 | \$3,255,527 | \$3,067,815 |
| Quillacollo | \$4,993,477 | \$5,442,277 | \$342,114 |
| Quime | \$89,376 | \$1,786,240 | \$1,590,177 |
| Quirusillas | \$22,601 | \$493,277 | \$363,989 |
| Ravelo | \$279,032 | \$3,863,062 | \$3,477,343 |
| Reyes | \$8,572 | \$1,062,327 | \$947,068 |
| Riberalta | \$127,167 | \$1,860,174 | \$1,626,320 |
| Roboré | \$36,858 | \$1,379,138 | \$1,235,593 |
| Rurrenabaque | \$61,193 | \$988,032 | \$820,152 |
| San Pedro De Buena Vista | \$1,019,904 | \$11,683,070 | \$10,556,479 |
| Sabaya | \$6,032 | \$208,186 | \$95,467 |
| Sacaba | \$13,443,033 | \$18,322,860 | \$4,773,140 |
| Sacabamba | \$351,058 | \$1,109,457 | \$651,713 |
| Saipina | \$34,732 | \$1,978,947 | \$1,837,529 |
| Salinas de Garci Mendoza | \$32,707 | \$3,028,912 | \$2,889,517 |
| Samaipata | \$77,808 | \$3,463,096 | \$3,278,600 |
| San Agustín | \$1,965 | \$237,617 | \$128,965 |
| San Andrés | \$27,501 | \$2,258,009 | \$2,123,821 |
| San Andrés de Machaca | \$52,690 | \$1,984,086 | \$1,824,709 |
| San Antonio de Esmorucu | \$1,576 | \$44,137 | -\$64,127 |
| San Antonio de Lomerío | \$147,309 | \$628,837 | \$374,840 |
| San Benito | \$1,588,966 | \$1,755,707 | \$60,054 |
| San Borja | \$357,377 | \$6,502,500 | \$6,038,436 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|--------------------------|--------------|------------------|-----------------|
| Municipios | | | |
| San Buenaventura | \$19,165 | \$597,436 | \$471,584 |
| San Carlos | \$333,832 | \$1,964,237 | \$1,523,717 |
| San Ignacio | \$8,954 | \$3,521,884 | \$3,406,243 |
| San Ignacio de Velasco | \$49,598 | \$5,046,851 | \$4,890,566 |
| San Javier | \$59,152 | \$1,356,144 | \$1,190,305 |
| San Joaquín | \$321 | \$539,980 | \$432,972 |
| San José de Chiquitos | \$7,732 | \$857,219 | \$742,800 |
| San Juan De Yapacaní | \$36,323 | \$1,574,985 | \$1,431,974 |
| San Julián | \$896,497 | \$11,827,635 | \$10,824,450 |
| San Lorenzo | \$5,678 | \$391,265 | \$278,900 |
| San Lucas | \$598,538 | \$7,013,638 | \$6,308,412 |
| San Matías | \$13,846 | \$3,160,599 | \$3,040,066 |
| San Miguel de Velasco | \$30,324 | \$2,277,744 | \$2,140,733 |
| San Pablo de Lípez | \$242 | \$93,180 | -\$13,749 |
| San Pedro | \$178,664 | \$6,060,396 | \$5,775,045 |
| San Pedro de Curahuara | \$448,283 | \$6,736,669 | \$6,181,699 |
| San Pedro de Quemes | \$904 | \$460,432 | \$352,840 |
| San Pedro de Tiquina | \$1,258,389 | \$440,867 | -\$924,209 |
| San Pedro de Totora | \$53,427 | \$1,728,890 | \$1,568,776 |
| San Rafael | \$3,361 | \$607,618 | \$497,570 |
| San Ramón | \$4,704 | \$552,020 | \$440,629 |
| Santa Ana de Yacuma | \$5,721 | \$1,285,132 | \$1,172,723 |
| Santa Cruz de la Sierra | \$20,058,684 | \$1,306,939 | -\$18,858,432 |
| Santa Rosa | \$1,429 | \$1,167,362 | \$1,059,246 |
| Santa Rosa del Sara | \$114,631 | \$4,445,819 | \$4,224,501 |
| Santiago de Andamarca | \$20,491 | \$954,792 | \$827,614 |
| Santiago de Huata | \$2,005,825 | \$742,227 | -\$1,370,285 |
| Santiago de Machaca | \$32,441 | \$859,990 | \$720,862 |
| Santiváñez | \$445,574 | \$1,449,297 | \$897,035 |
| Santos Mercado | \$124 | \$67,097 | -\$39,715 |
| Sapahaqui | \$565,357 | \$7,256,987 | \$6,584,943 |
| Sena | \$791 | \$122,927 | \$15,449 |
| Shinahota | \$1,066,285 | \$10,119,576 | \$8,946,604 |
| Sica Sica | \$1,085,430 | \$10,887,034 | \$9,694,917 |
| Sicaya | \$165,539 | \$583,805 | \$311,579 |
| Sipesipe | \$3,686,970 | \$7,736,230 | \$3,942,573 |
| Sopachuy | \$110,353 | \$1,950,472 | \$1,733,432 |
| Pari - Paria - Soracachi | \$139,513 | \$2,589,052 | \$2,342,852 |
| Sorata | \$441,128 | \$2,291,640 | \$1,743,825 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|---------------|-------------|------------------|-----------------|
| Municipios | | | |
| Sucre | \$9,380,792 | \$5,318,130 | -\$4,169,349 |
| Tacachi | \$125,945 | \$43,067 | -\$189,565 |
| Tacacoma | \$158,682 | \$1,643,616 | \$1,378,247 |
| Tacobamba | \$486,579 | \$2,274,577 | \$1,681,311 |
| Tacopaya | \$32,676 | \$69,339 | -\$70,025 |
| Tahua | \$4,369 | \$356,880 | \$245,824 |
| Tapacarí | \$1,019,257 | \$6,783,491 | \$5,657,547 |
| Tarabuco | \$562,250 | \$4,580,066 | \$3,911,129 |
| Taraco | \$726,330 | \$1,173,642 | \$340,625 |
| Tarata | \$333,547 | \$731,478 | \$291,244 |
| Tarija | \$4,439,318 | \$11,875,413 | \$7,329,408 |
| Tarvita | \$372,811 | \$8,771,878 | \$8,292,380 |
| Teoponte | \$169,748 | \$6,074,150 | \$5,797,715 |
| Tiahuanacu | \$702,046 | \$3,115,673 | \$2,306,939 |
| Tinguipaya | \$1,056,888 | \$6,789,240 | \$5,625,665 |
| Tipuani | \$87,194 | \$280,343 | \$86,462 |
| Tiquipaya | \$3,029,019 | \$10,113,484 | \$6,977,777 |
| Tiraque | \$395,770 | \$10,287,665 | \$9,785,208 |
| Tito Yupanqui | \$5,227,773 | \$231,215 | -\$5,103,246 |
| Todos Santos | \$3,703 | \$39,388 | -\$71,002 |
| Toco | \$2,226,031 | \$2,476,974 | \$144,256 |
| Tolata | \$219,025 | \$173,286 | -\$152,426 |
| Toledo | \$72,770 | \$1,082,891 | \$903,434 |
| Tomave | \$74,942 | \$3,759,462 | \$3,577,833 |
| Tomina | \$63,925 | \$1,459,164 | \$1,288,552 |
| Toro Toro | \$239,769 | \$5,396,565 | \$5,050,109 |
| Totora | \$295,557 | \$13,615,152 | \$13,212,908 |
| Trigal | \$36,810 | \$992,723 | \$849,226 |
| Trinidad | \$61,305 | \$517,301 | \$349,309 |
| Tupiza | \$321,682 | \$6,860,087 | \$6,431,718 |
| Turco | \$6,349 | \$295,388 | \$182,351 |
| Umala | \$478,160 | \$6,388,199 | \$5,803,352 |
| Uncía | \$993,349 | \$3,216,134 | \$2,116,097 |
| Uriondo | \$274,455 | \$5,676,895 | \$5,295,753 |
| Urmiri | \$13,719 | \$747,122 | \$626,716 |
| Urubichá | \$958 | \$471,869 | \$364,224 |
| Uyuni | \$152,981 | \$6,210,323 | \$5,950,654 |
| Vacas | \$417,186 | \$3,275,318 | \$2,751,445 |
| Vallegrande | \$160,832 | \$5,877,065 | \$5,609,546 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-Costo |
|-------------------------|-------------|------------------|-----------------|
| Municipios | | | |
| Viacha | \$3,339,205 | \$5,753,730 | \$2,307,838 |
| Vila Vila | \$117,162 | \$1,081,037 | \$857,187 |
| Villa Abecia | \$31,732 | \$892,295 | \$753,876 |
| Villa Alcalá | \$92,364 | \$1,791,443 | \$1,592,392 |
| Villa Charcas | \$418,554 | \$2,395,762 | \$1,870,521 |
| Villa de Sacaca | \$994,868 | \$6,804,914 | \$5,703,359 |
| Villa Libertad Licoma | \$122,813 | \$600,204 | \$370,704 |
| Villa Nueva (Loma Alta) | \$3,094 | \$349,554 | \$239,772 |
| Villa Rivero | \$1,070,603 | \$771,134 | -\$406,156 |
| Villa San Lorenzo | \$376,984 | \$6,927,173 | \$6,443,501 |
| Villa Serrano | \$120,929 | \$5,785,064 | \$5,557,448 |
| Villa Tunari | \$1,259,592 | \$44,968,288 | \$43,602,009 |
| Villamontes | \$31,234 | \$2,934,070 | \$2,796,149 |
| Villazón | \$201,365 | \$2,251,143 | \$1,943,090 |
| Vinto | \$5,936,923 | \$3,687,402 | -\$2,356,208 |
| Vitichi | \$203,060 | \$2,793,593 | \$2,483,845 |
| Waldo Ballivián | \$395,115 | \$3,756,886 | \$3,255,084 |
| Warnes | \$361,555 | \$817,705 | \$349,462 |
| Yaco | \$144,362 | \$1,737,576 | \$1,486,527 |
| Yacuiba | \$383,466 | \$2,667,899 | \$2,177,746 |
| Yamparáez | \$215,138 | \$1,044,520 | \$722,694 |
| Ynacachi | \$76,151 | \$664,283 | \$481,445 |
| Yapacaní | \$395,335 | \$8,661,169 | \$8,159,147 |
| Yocalla | \$238,617 | \$2,160,971 | \$1,815,666 |
| Yotala | \$218,755 | \$817,372 | \$491,930 |
| Yunchará | \$34,449 | \$1,876,159 | \$1,735,023 |
| Zudáñez | \$194,886 | \$1,839,866 | \$1,538,292 |

| País: Colombia | Costo | VIPN | Beneficio |
|--------------------|---------------|---------------|---------------|
| Departamentos | | | |
| Antioquia | \$150,598,685 | \$136,519,783 | -\$19,145,330 |
| Atlantico | \$49,844,897 | \$8,690,337 | -\$46,220,988 |
| Santa Fe de Bogotá | \$45,190,525 | \$901,096 | -\$49,355,857 |
| Bolivar | \$51,321,023 | \$97,117,815 | \$40,730,364 |
| Boyaca | \$72,320,567 | \$111,059,629 | \$33,672,634 |
| Caldas | \$36,190,694 | \$36,480,268 | -\$4,776,853 |
| Caqueta | \$5,862,539 | \$32,270,500 | \$21,341,534 |
| Cauca | \$93,404,363 | \$129,461,252 | \$30,990,461 |
| Cesar | \$40,409,418 | \$61,741,211 | \$16,265,366 |
| Cordova | \$80,447,828 | \$65,459,399 | -\$20,054,856 |
| Cundinamarca | \$77,585,936 | \$121,126,372 | \$38,474,008 |
| Choco | \$6,190,452 | \$72,744,487 | \$61,487,607 |
| Huila | \$48,048,208 | \$83,673,069 | \$30,558,433 |
| La Guajira | \$15,179,855 | \$35,141,028 | \$14,894,745 |
| Magdalena | \$32,009,670 | \$70,796,519 | \$33,720,421 |
| Meta | \$20,848,344 | \$46,562,200 | \$20,647,428 |
| Nariño | \$101,720,408 | \$134,960,708 | \$28,173,872 |
| Norte de Santander | \$44,512,433 | \$50,385,095 | \$806,234 |
| Quindio | \$15,128,050 | \$10,128,940 | -\$10,065,537 |
| Risaralda | \$38,747,847 | \$26,112,043 | -\$17,702,232 |
| Santander | \$48,719,156 | \$106,463,079 | \$52,677,496 |
| Sucre | \$62,079,738 | \$55,069,545 | -\$12,076,621 |
| Tolima | \$74,189,342 | \$148,902,663 | \$69,646,894 |
| Valle | \$47,286,078 | \$43,546,228 | -\$8,806,278 |
| Arauca | \$4,360,494 | \$16,528,630 | \$7,101,708 |
| Casanare | \$14,430,163 | \$16,647,482 | -\$2,849,108 |
| Putumayo | \$6,256,780 | \$5,618,465 | -\$5,704,743 |
| San Andres | \$3,077,338 | \$90,952 | -\$8,052,813 |
| Amazonas | \$227,297 | \$3,803,945 | -\$1,489,780 |
| Guainia | \$204,524 | \$7,267,437 | \$1,996,485 |
| Guaviare | \$417,090 | \$2,424,217 | -\$3,059,301 |
| Vaupes | \$103,728 | \$1,451,789 | -\$3,718,367 |
| Vichada | \$693,873 | \$6,555,867 | \$795,567 |

| País: Perú | Costo | VIPN | Beneficio |
|------------------------|-----------|-----------|-----------|
| Municipios | | | |
| CHACHAPOYAS | \$1,765 | \$1,180 | -\$585 |
| BALSAS | \$11,513 | \$45,024 | \$33,511 |
| CHUQUIBAMBA | \$12,054 | \$53,966 | \$41,912 |
| HUANCAS | \$1,765 | \$213 | -\$1,552 |
| LA JALCA | \$3,931 | \$7,249 | \$3,318 |
| LEIMEBAMBA | \$3,931 | \$6,366 | \$2,434 |
| MOLINOPAMPA | \$3,390 | \$6,882 | \$3,492 |
| MONTEVIDEO | \$1,765 | \$2,015 | \$250 |
| QUINJALCA | \$3,390 | \$7,400 | \$4,010 |
| SOLOCO | \$2,307 | \$5,099 | \$2,792 |
| BAGUA | \$8,805 | \$39,285 | \$30,480 |
| ARAMANGO | \$28,841 | \$80,868 | \$52,027 |
| COPALLIN | \$2,307 | \$1,300 | -\$1,006 |
| EL PARCO | \$1,765 | \$409 | -\$1,357 |
| IMAZA | \$113,319 | \$348,406 | \$235,087 |
| LA PECA | \$9,346 | \$17,411 | \$8,065 |
| JUMBILLA | \$1,765 | \$1,144 | -\$621 |
| CHISQUILLA | \$2,307 | \$3,873 | \$1,566 |
| CHURUJA | \$2,848 | \$3,444 | \$596 |
| FLORIDA | \$10,430 | \$31,786 | \$21,356 |
| JAZAN | \$2,307 | \$1,327 | -\$979 |
| RECTA | \$1,765 | \$2,134 | \$369 |
| SHIPASBAMBA | \$9,346 | \$31,129 | \$21,782 |
| YAMBRASBAMBA | \$18,552 | \$68,270 | \$49,717 |
| NIEVA | \$65,123 | \$103,235 | \$38,111 |
| EL CENEPA | \$55,376 | \$91,535 | \$36,159 |
| RIO SANTIAGO | \$67,831 | \$114,846 | \$47,015 |
| CAMPORREDONDO | \$17,469 | \$47,442 | \$29,973 |
| COCABAMBA | \$2,848 | \$2,107 | -\$741 |
| COLCAMAR | \$1,765 | \$314 | -\$1,451 |
| LONGUITA | \$2,307 | \$3,552 | \$1,245 |
| LONYA CHICO | \$2,848 | \$3,283 | \$434 |
| OCALLI | \$2,307 | \$2,760 | \$453 |
| OCUMAL | \$6,097 | \$13,776 | \$7,679 |
| PISUQUIA | \$8,805 | \$27,508 | \$18,703 |
| PROVIDENCIA | \$1,765 | \$1,038 | -\$728 |
| SAN FRANCISCO DEL YESO | \$2,307 | \$2,011 | -\$296 |
| SAN JERONIMO | \$3,931 | \$11,691 | \$7,760 |
| SANTA CATALINA | \$7,180 | \$15,503 | \$8,322 |
| SANTO TOMAS | \$3,931 | \$9,455 | \$5,524 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------|----------|-----------|-----------|
| Municipios | | | |
| TINGO | \$2,848 | \$2,873 | \$24 |
| TRITA | \$1,765 | \$1,506 | -\$259 |
| CHIRIMOTO | \$4,473 | \$9,517 | \$5,044 |
| COCHAMAL | \$2,307 | \$2,225 | -\$81 |
| HUAMBO | \$2,307 | \$2,245 | -\$61 |
| LIMABAMBA | \$3,931 | \$17,731 | \$13,800 |
| MARISCAL BENAVIDES | \$4,473 | \$6,789 | \$2,316 |
| OMIA | \$60,250 | \$263,626 | \$203,376 |
| TOTORA | \$1,765 | \$1,179 | -\$586 |
| VISTA ALEGRE | \$15,303 | \$48,971 | \$33,667 |
| BAGUA GRANDE | \$49,419 | \$137,594 | \$88,175 |
| CAJARURO | \$7,722 | \$26,972 | \$19,250 |
| CUMBA | \$20,718 | \$297,466 | \$276,748 |
| EL MILAGRO | \$6,639 | \$108,887 | \$102,248 |
| JAMALCA | \$3,931 | \$12,106 | \$8,175 |
| LONYA GRANDE | \$6,097 | \$7,963 | \$1,865 |
| COCHABAMBA | \$2,848 | \$5,999 | \$3,151 |
| INDEPENDENCIA | \$12,596 | \$49,893 | \$37,297 |
| JANGAS | \$3,931 | \$7,541 | \$3,609 |
| OLLEROS | \$1,765 | \$1,083 | -\$682 |
| PAMPAS GRANDE | \$2,307 | \$2,092 | -\$214 |
| PARIACOTO | \$3,390 | \$5,170 | \$1,780 |
| PIRA | \$4,473 | \$11,957 | \$7,484 |
| TARICA | \$2,307 | \$2,489 | \$182 |
| AIJA | \$2,848 | \$2,413 | -\$435 |
| CORIS | \$11,513 | \$19,516 | \$8,004 |
| HUACLLAN | \$6,639 | \$9,662 | \$3,023 |
| LA MERCED | \$3,390 | \$4,056 | \$667 |
| SUCCHA | \$4,473 | \$6,027 | \$1,554 |
| LLAMELLIN | \$6,097 | \$12,332 | \$6,235 |
| ACZO | \$3,390 | \$4,828 | \$1,438 |
| CHACCHO | \$2,848 | \$4,688 | \$1,840 |
| CHINGAS | \$2,848 | \$2,945 | \$96 |
| MIRGAS | \$10,971 | \$24,542 | \$13,571 |
| SAN JUAN DE RONTOY | \$7,180 | \$11,062 | \$3,881 |
| CHACAS | \$9,346 | \$16,472 | \$7,125 |
| ACOCACA | \$8,805 | \$13,490 | \$4,685 |
| CHIQUIAN | \$5,556 | \$19,073 | \$13,518 |
| ANTONIO RAYMONDI | \$2,307 | \$142 | -\$2,165 |
| AQUIA | \$1,765 | \$96 | -\$1,669 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------|----------|-----------|-----------|
| Municipios | | | |
| CAJACAY | \$3,931 | \$6,420 | \$2,489 |
| COLQUIOC | \$4,473 | \$18,188 | \$13,715 |
| HUALLANCA | \$13,679 | \$48,741 | \$35,063 |
| HUASTA | \$2,307 | \$10,001 | \$7,695 |
| HUAYLLACAYAN | \$1,765 | \$2,638 | \$872 |
| LA PRIMAVERA | \$1,765 | \$1,125 | -\$641 |
| MANGAS | \$1,765 | \$16 | -\$1,749 |
| PACLLON | \$1,765 | \$1,132 | -\$634 |
| TICLLOS | \$2,307 | \$85 | -\$2,222 |
| CARHUAZ | \$2,848 | \$1,013 | -\$1,835 |
| ACOPAMPA | \$1,765 | \$876 | -\$890 |
| AMASHCA | \$1,765 | \$1,071 | -\$695 |
| ANTA | \$2,848 | \$3,520 | \$672 |
| ATAQUERO | \$4,473 | \$8,058 | \$3,585 |
| MARCARA | \$5,014 | \$9,653 | \$4,638 |
| PARIAHUANCA | \$5,014 | \$6,743 | \$1,729 |
| SAN MIGUEL DE ACO | \$3,390 | \$5,513 | \$2,123 |
| SHILLA | \$2,307 | \$2,475 | \$168 |
| YUNGAR | \$2,848 | \$4,359 | \$1,510 |
| SAN LUIS | \$52,668 | \$103,717 | \$51,048 |
| SAN NICOLAS | \$21,802 | \$40,273 | \$18,472 |
| YAUYA | \$6,097 | \$18,523 | \$12,426 |
| CASMA | \$3,390 | \$7,825 | \$4,436 |
| BUENA VISTA ALTA | \$2,848 | \$4,144 | \$1,295 |
| YAUTAN | \$8,805 | \$36,348 | \$27,543 |
| CORONGO | \$2,307 | \$1,267 | -\$1,040 |
| BAMBAS | \$2,307 | \$2,181 | -\$126 |
| CUSCA | \$32,632 | \$76,975 | \$44,343 |
| LA PAMPA | \$1,765 | \$27 | -\$1,739 |
| YANAC | \$1,765 | \$1,054 | -\$711 |
| HUARI | \$2,307 | \$3,679 | \$1,372 |
| ANRA | \$1,765 | \$1,301 | -\$464 |
| CAJAY | \$3,931 | \$6,813 | \$2,882 |
| CHAVIN DE HUANTAR | \$9,346 | \$19,129 | \$9,783 |
| HUACACHI | \$6,639 | \$15,448 | \$8,809 |
| HUACHIS | \$4,473 | \$7,518 | \$3,046 |
| HUANTAR | \$1,765 | \$1,232 | -\$533 |
| MASIN | \$6,639 | \$11,624 | \$4,985 |
| PAUCAS | \$5,014 | \$14,342 | \$9,328 |
| PONTO | \$3,931 | \$5,479 | \$1,548 |

| País: Perú | Costo | VIPN | Beneficio |
|------------------------|----------|-----------|-----------|
| Municipios | | | |
| RAPAYAN | \$2,848 | \$3,593 | \$745 |
| SAN MARCOS | \$9,888 | \$19,793 | \$9,905 |
| SAN PEDRO DE CHANA | \$4,473 | \$13,636 | \$9,163 |
| UCO | \$2,848 | \$3,768 | \$920 |
| HUARMEY | \$6,639 | \$36,854 | \$30,215 |
| COCHAPETI | \$1,765 | \$4,261 | \$2,496 |
| CULEBRAS | \$2,307 | \$53,358 | \$51,051 |
| HUAYAN | \$2,848 | \$2,857 | \$9 |
| MALVAS | \$1,765 | \$1,366 | -\$399 |
| CARAZ | \$2,848 | \$356 | -\$2,492 |
| HUALLANCA | \$1,765 | \$0 | -\$1,765 |
| PAMPAROMAS | \$4,473 | \$916 | -\$3,557 |
| PUEBLO LIBRE | \$2,848 | \$2,405 | -\$443 |
| SANTA CRUZ | \$2,307 | \$170 | -\$2,136 |
| SANTO TORIBIO | \$2,848 | \$5,167 | \$2,319 |
| PISCOBAMBA | \$2,848 | \$2,056 | -\$792 |
| CASCA | \$3,390 | \$3,048 | -\$341 |
| ELEAZAR GUZMAN BARRON | \$3,390 | \$3,150 | -\$239 |
| FIDEL OLIVAS ESCUDERO | \$13,679 | \$37,428 | \$23,750 |
| LLAMA | \$2,848 | \$2,137 | -\$711 |
| LLUMPA | \$18,552 | \$41,885 | \$23,333 |
| LUCMA | \$7,180 | \$11,775 | \$4,594 |
| MUSGA | \$7,722 | \$13,420 | \$5,698 |
| OCROS | \$5,556 | \$43,482 | \$37,926 |
| CAJAMARQUILLA | \$1,765 | \$1,580 | -\$185 |
| COCHAS | \$2,307 | \$4,659 | \$2,353 |
| CONGAS | \$8,805 | \$15,174 | \$6,370 |
| SAN CRISTOBAL DE RAJAN | \$2,848 | \$3,200 | \$352 |
| SAN PEDRO | \$7,722 | \$32,060 | \$24,338 |
| SANTIAGO DE CHILCAS | \$2,307 | \$1,402 | -\$905 |
| CABANA | \$2,307 | \$2,991 | \$684 |
| CONCHUCOS | \$13,137 | \$36,269 | \$23,132 |
| HUACASCHUQUE | \$1,765 | \$90 | -\$1,676 |
| LACABAMBA | \$1,765 | \$841 | -\$925 |
| PALLASCA | \$2,307 | \$2,428 | \$122 |
| PAMPAS | \$19,635 | \$55,011 | \$35,376 |
| SANTA ROSA | \$1,765 | \$5,126 | \$3,360 |
| TAUCA | \$2,307 | \$1,167 | -\$1,140 |
| POMABAMBA | \$71,080 | \$127,481 | \$56,401 |
| HUAYLLAN | \$22,885 | \$41,970 | \$19,085 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------------|----------|-----------|-----------|
| Municipios | | | |
| PAROBAMBA | \$19,094 | \$41,884 | \$22,791 |
| QUINUABAMBA | \$8,263 | \$14,370 | \$6,106 |
| RECUAY | \$2,848 | \$2,979 | \$131 |
| CATAC | \$2,307 | \$3,495 | \$1,188 |
| HUAYLLAPAMPA | \$3,390 | \$1,881 | -\$1,509 |
| LLACLLIN | \$3,390 | \$760 | -\$2,630 |
| PAMPAS CHICO | \$2,307 | \$3,508 | \$1,202 |
| PARARIN | \$3,390 | \$384 | -\$3,006 |
| TICAPAMPA | \$1,765 | \$1,763 | -\$2 |
| CHIMBOTE | \$2,848 | \$5,760 | \$2,912 |
| CACERES DEL PERU | \$5,556 | \$4,191 | -\$1,364 |
| MACATE | \$2,307 | \$4,585 | \$2,278 |
| MORO | \$3,390 | \$11,662 | \$8,273 |
| SANTA | \$1,765 | \$11,907 | \$10,142 |
| NUEVO CHIMBOTE | \$6,639 | \$44,405 | \$37,766 |
| SIHUAS | \$2,307 | \$1,963 | -\$344 |
| ACOBAMBA | \$2,307 | \$1,987 | -\$320 |
| ALFONSO UGARTE | \$2,307 | \$5,160 | \$2,854 |
| CASHAPAMPA | \$4,473 | \$11,383 | \$6,911 |
| CHINGALPO | \$2,307 | \$4,053 | \$1,746 |
| HUAYLLABAMBA | \$13,137 | \$25,695 | \$12,558 |
| QUICHES | \$3,390 | \$3,006 | -\$384 |
| RAGASH | \$5,556 | \$12,440 | \$6,885 |
| SAN JUAN | \$25,051 | \$51,774 | \$26,723 |
| SICSIBAMBA | \$2,307 | \$2,088 | -\$219 |
| YUNGAY | \$9,888 | \$14,698 | \$4,810 |
| CASCAPARA | \$9,346 | \$18,346 | \$8,999 |
| MANCOS | \$5,014 | \$6,545 | \$1,531 |
| MATACOTO | \$1,765 | \$1,170 | -\$595 |
| QUILLO | \$18,011 | \$36,744 | \$18,734 |
| SHUPLUY | \$7,722 | \$12,427 | \$4,705 |
| YANAMA | \$2,848 | \$5,725 | \$2,877 |
| ABANCAY | \$6,097 | \$85,572 | \$79,474 |
| CIRCA | \$5,556 | \$8,930 | \$3,374 |
| CURAHUASI | \$18,552 | \$74,076 | \$55,523 |
| HUANIPACA | \$25,592 | \$195,804 | \$170,212 |
| LAMBRAMA | \$3,390 | \$8,268 | \$4,878 |
| PICHIRHUA | \$7,180 | \$24,375 | \$17,194 |
| SAN PEDRO DE CACHORA | \$3,931 | \$12,471 | \$8,540 |
| ANDAHUAYLAS | \$6,097 | \$36,847 | \$30,749 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------------|----------|-----------|-----------|
| Municipios | | | |
| ANDARAPA | \$7,180 | \$17,281 | \$10,101 |
| CHIARA | \$1,765 | \$1,989 | \$223 |
| HUANCARAMA | \$2,848 | \$4,935 | \$2,087 |
| HUANCARAY | \$2,848 | \$3,819 | \$970 |
| HUAYANA | \$7,180 | \$22,730 | \$15,550 |
| KISHUARA | \$4,473 | \$23,423 | \$18,951 |
| PACOBAMBA | \$2,848 | \$21,753 | \$18,905 |
| PACUCHA | \$3,390 | \$7,520 | \$4,130 |
| PAMPACHIRI | \$1,765 | \$2,341 | \$576 |
| SAN ANTONIO DE CACHI | \$1,765 | \$973 | -\$792 |
| SAN JERONIMO | \$5,556 | \$16,827 | \$11,271 |
| SAN MIGUEL DE CHACCRAMPA | \$1,765 | \$1,132 | -\$633 |
| SANTA MARIA DE CHICMO | \$2,848 | \$5,854 | \$3,005 |
| TALAVERA | \$2,307 | \$9,445 | \$7,139 |
| TUMAY HUARACA | \$5,014 | \$16,173 | \$11,159 |
| TURPO | \$3,931 | \$7,735 | \$3,804 |
| KAQUIABAMBA | \$3,931 | \$7,404 | \$3,472 |
| ANTABAMBA | \$18,011 | \$32,536 | \$14,526 |
| EL ORO | \$2,307 | \$554 | -\$1,753 |
| HUAQUIRCA | \$2,307 | \$388 | -\$1,919 |
| JUAN ESPINOZA MEDRANO | \$3,390 | \$3,020 | -\$369 |
| OROPESA | \$10,430 | \$28,823 | \$18,394 |
| PACHACONAS | \$5,014 | \$15,830 | \$10,816 |
| SABAINO | \$8,263 | \$22,323 | \$14,060 |
| CHALHUANCA | \$1,765 | \$1,396 | -\$369 |
| CAPAYA | \$3,931 | \$4,332 | \$401 |
| CHAPIMARCA | \$6,097 | \$15,804 | \$9,706 |
| COTARUSE | \$3,390 | \$10,100 | \$6,710 |
| JUSTO APU SAHUARAURA | \$2,848 | \$7,179 | \$4,331 |
| LUCRE | \$2,307 | \$1,262 | -\$1,045 |
| SAÑAYCA | \$3,931 | \$8,096 | \$4,165 |
| SORAYA | \$2,848 | \$3,687 | \$839 |
| TAPAIRIHUA | \$1,765 | \$2,014 | \$248 |
| TINTAY | \$6,097 | \$14,672 | \$8,575 |
| TORAYA | \$1,765 | \$2,199 | \$434 |
| TAMBOBAMBA | \$31,007 | \$89,494 | \$58,487 |
| COTABAMBAS | \$3,390 | \$5,816 | \$2,427 |
| COYLLURQUI | \$27,758 | \$84,045 | \$56,287 |
| HAQUIRA | \$22,343 | \$103,978 | \$81,635 |
| MARA | \$10,430 | \$29,715 | \$19,285 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------------------|----------|-----------|-----------|
| Municipios | | | |
| CHALLHUAHUACHO | \$37,506 | \$162,968 | \$125,462 |
| CHINCHEROS | \$6,639 | \$13,128 | \$6,489 |
| ANCO_HUALLO | \$2,848 | \$3,949 | \$1,101 |
| COCHARCAS | \$2,848 | \$2,690 | -\$158 |
| HUACCANA | \$13,137 | \$38,626 | \$25,489 |
| OCOBAMBA | \$7,722 | \$15,045 | \$7,323 |
| ONGOY | \$20,718 | \$62,531 | \$41,813 |
| URANMARCA | \$5,014 | \$9,511 | \$4,497 |
| RANRACANCHA | \$7,722 | \$19,978 | \$12,256 |
| CHUQUIBAMBILLA | \$13,679 | \$38,136 | \$24,457 |
| CURPAHUASI | \$14,762 | \$43,157 | \$28,395 |
| GAMARRA | \$6,097 | \$15,030 | \$8,932 |
| HUAYLLATI | \$5,556 | \$7,779 | \$2,223 |
| MAMARA | \$7,180 | \$18,521 | \$11,341 |
| MICAELA BASTIDAS | \$2,848 | \$2,512 | -\$336 |
| PATAYPAMPA | \$1,765 | \$2,800 | \$1,035 |
| PROGRESO | \$12,054 | \$32,219 | \$20,165 |
| SANTA ROSA | \$3,390 | \$5,009 | \$1,619 |
| TURPAY | \$2,307 | \$1,131 | -\$1,176 |
| VILCABAMBA | \$1,765 | \$1,156 | -\$609 |
| CURASCO | \$3,390 | \$5,374 | \$1,984 |
| CHIGUATA | \$2,848 | \$9,667 | \$6,819 |
| LA JOYA | \$2,307 | \$28,571 | \$26,265 |
| POCSI | \$3,931 | \$7,651 | \$3,719 |
| SAN JUAN DE SIGUAS | \$7,180 | \$131,842 | \$124,661 |
| SAN JUAN DE TARUCANI | \$1,765 | \$1,447 | -\$318 |
| SANTA ISABEL DE SIGUAS | \$2,307 | \$24,698 | \$22,391 |
| UCHUMAYO | \$3,931 | \$29,425 | \$25,494 |
| YURA | \$1,765 | \$2,967 | \$1,202 |
| MARIANO NICOLAS VALCARCEL | \$7,180 | \$18,500 | \$11,320 |
| NICOLAS DE PIEROLA | \$2,848 | \$57,076 | \$54,228 |
| OCOÑA | \$5,556 | \$25,997 | \$20,441 |
| ACARI | \$5,014 | \$113,933 | \$108,918 |
| CAHUACHO | \$1,765 | \$371 | -\$1,394 |
| HUANUHUANU | \$2,848 | \$4,708 | \$1,860 |
| JAQUI | \$2,307 | \$798 | -\$1,509 |
| QUICACHA | \$2,848 | \$1,170 | -\$1,678 |
| APLAO | \$3,390 | \$11,404 | \$8,014 |
| CHOCO | \$1,765 | \$1 | -\$1,764 |
| MACHAGUAY | \$3,390 | \$2,647 | -\$743 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------------|----------|----------|-----------|
| Municipios | | | |
| ORCOPAMPA | \$1,765 | \$1,916 | \$151 |
| PAMPACOLCA | \$6,639 | \$17,389 | \$10,751 |
| URACA | \$1,765 | \$2,128 | \$363 |
| VIRACO | \$1,765 | \$918 | -\$847 |
| CHIVAY | \$1,765 | \$77 | -\$1,688 |
| ACHOMA | \$1,765 | \$1 | -\$1,765 |
| CABANACONDE | \$5,556 | \$21,026 | \$15,470 |
| CALLALLI | \$1,765 | \$11,278 | \$9,513 |
| CAYLLOMA | \$5,014 | \$13,236 | \$8,221 |
| COPORAQUE | \$1,765 | \$106 | -\$1,659 |
| HUAMBO | \$5,014 | \$14,923 | \$9,909 |
| MACA | \$1,765 | \$1,128 | -\$638 |
| MADRIGAL | \$1,765 | \$2,097 | \$331 |
| SAN ANTONIO DE CHUCA | \$3,390 | \$12,858 | \$9,468 |
| TISCO | \$1,765 | \$1,995 | \$230 |
| TUTI | \$1,765 | \$48 | -\$1,717 |
| MAJES | \$1,765 | \$3,705 | \$1,940 |
| CHUQUIBAMBA | \$1,765 | \$5,565 | \$3,800 |
| CAYARANI | \$15,845 | \$41,434 | \$25,589 |
| CHICHAS | \$13,137 | \$25,444 | \$12,307 |
| RIO GRANDE | \$3,931 | \$20,629 | \$16,697 |
| SALAMANCA | \$2,307 | \$214 | -\$2,093 |
| YANAQUIHUA | \$9,346 | \$11,700 | \$2,354 |
| MOLLENDO | \$4,473 | \$52,419 | \$47,946 |
| COCACHACRA | \$2,848 | \$10,613 | \$7,765 |
| DEAN VALDIVIA | \$2,848 | \$16,124 | \$13,276 |
| MEJIA | \$1,765 | \$2,722 | \$957 |
| PUNTA DE BOMBON | \$2,307 | \$2,926 | \$619 |
| COTAHUASI | \$2,848 | \$2,859 | \$10 |
| ALCA | \$6,097 | \$9,021 | \$2,924 |
| CHARCANA | \$1,765 | \$162 | -\$1,603 |
| HUAYNACOTAS | \$14,220 | \$37,959 | \$23,739 |
| PAMPAMARCA | \$9,888 | \$14,669 | \$4,781 |
| PUYCA | \$20,177 | \$31,303 | \$11,126 |
| QUECHUALLA | \$7,180 | \$23,212 | \$16,032 |
| SAYLA | \$2,307 | \$3,287 | \$981 |
| TOMEPAMPA | \$2,307 | \$2,401 | \$94 |
| TORO | \$8,263 | \$14,642 | \$6,379 |
| AYACUCHO | \$2,307 | \$5,877 | \$3,570 |
| ACOCRO | \$13,679 | \$54,955 | \$41,277 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------------|----------|-----------|-----------|
| Municipios | | | |
| ACOS VINCHOS | \$6,097 | \$13,815 | \$7,718 |
| CHIARA | \$18,552 | \$136,843 | \$118,291 |
| OCROS | \$6,097 | \$17,647 | \$11,550 |
| PACAYCASA | \$1,765 | \$1,167 | -\$598 |
| QUINUA | \$6,097 | \$17,302 | \$11,204 |
| SAN JOSE DE TICLLAS | \$2,848 | \$3,970 | \$1,121 |
| SANTIAGO DE PISCHA | \$2,307 | \$1,918 | -\$389 |
| SOCOS | \$6,097 | \$14,511 | \$8,413 |
| TAMBILLO | \$3,390 | \$14,698 | \$11,308 |
| VINCHOS | \$19,635 | \$75,585 | \$55,949 |
| CANGALLO | \$15,845 | \$25,704 | \$9,859 |
| CHUSCHI | \$23,426 | \$119,365 | \$95,939 |
| LOS MOROCHUCOS | \$5,556 | \$19,441 | \$13,885 |
| MARIA PARADO DE BELLIDO | \$3,931 | \$4,414 | \$483 |
| PARAS | \$9,346 | \$22,720 | \$13,374 |
| TOTOS | \$2,307 | \$1,587 | -\$719 |
| SANCOS | \$5,556 | \$14,496 | \$8,940 |
| CARAPO | \$15,303 | \$31,729 | \$16,426 |
| SACSAMARCA | \$8,263 | \$18,478 | \$10,214 |
| SANTIAGO DE LUCANAMARCA | \$9,888 | \$22,215 | \$12,327 |
| HUANTA | \$27,217 | \$67,119 | \$39,903 |
| AYAHUANCO | \$10,971 | \$21,751 | \$10,780 |
| HUAMANGUILLA | \$14,762 | \$26,226 | \$11,464 |
| IGUAIN | \$8,805 | \$14,182 | \$5,377 |
| LURICOCHA | \$9,346 | \$23,945 | \$14,598 |
| SANTILLANA | \$10,971 | \$18,012 | \$7,040 |
| SIVIA | \$18,011 | \$45,026 | \$27,015 |
| LLOCHEGUA | \$6,097 | \$30,363 | \$24,265 |
| SAN MIGUEL | \$31,007 | \$146,693 | \$115,686 |
| ANCO | \$33,715 | \$198,225 | \$164,510 |
| AYNA | \$1,765 | \$20,783 | \$19,018 |
| CHILCAS | \$8,805 | \$16,136 | \$7,331 |
| CHUNGUI | \$16,386 | \$54,914 | \$38,528 |
| SANTA ROSA | \$2,848 | \$5,288 | \$2,440 |
| TAMBO | \$19,635 | \$47,055 | \$27,420 |
| SAMUGARI | \$8,805 | \$58,185 | \$49,380 |
| PUQUIO | \$1,765 | \$851 | -\$914 |
| AUCARA | \$2,848 | \$4,635 | \$1,787 |
| CABANA | \$7,722 | \$24,721 | \$16,999 |
| CHIPAO | \$6,097 | \$18,528 | \$12,430 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------------------|----------|----------|-----------|
| Municipios | | | |
| HUAC-HUAS | \$3,931 | \$9,632 | \$5,701 |
| LARAMATE | \$2,307 | \$1,907 | -\$400 |
| LEONCIO PRADO | \$3,390 | \$4,479 | \$1,090 |
| LLAUTA | \$3,931 | \$16,264 | \$12,333 |
| LUCANAS | \$1,765 | \$1,226 | -\$539 |
| OCAÑA | \$2,848 | \$3,633 | \$785 |
| OTOCA | \$6,639 | \$14,314 | \$7,675 |
| SAN CRISTOBAL | \$1,765 | \$931 | -\$834 |
| SAN JUAN | \$1,765 | \$0 | -\$1,765 |
| SAN PEDRO | \$6,097 | \$8,715 | \$2,618 |
| SAN PEDRO DE PALCO | \$2,307 | \$2,071 | -\$236 |
| SANCOS | \$14,762 | \$34,723 | \$19,961 |
| SANTA ANA DE HUAYCAHUACHO | \$1,765 | \$1,595 | -\$170 |
| SANTA LUCIA | \$2,848 | \$3,915 | \$1,067 |
| CORACORA | \$12,596 | \$38,072 | \$25,476 |
| CHUMPI | \$6,097 | \$11,863 | \$5,766 |
| CORONEL CASTAÑEDA | \$2,848 | \$6,539 | \$3,691 |
| PACAPUSA | \$8,263 | \$30,020 | \$21,756 |
| PULLO | \$7,722 | \$19,065 | \$11,343 |
| PUYUSCA | \$3,390 | \$4,003 | \$613 |
| SAN FRANCISCO DE RAVACAYCO | \$6,639 | \$14,228 | \$7,589 |
| UPAHUACHO | \$5,556 | \$9,123 | \$3,567 |
| PAUSA | \$5,556 | \$9,778 | \$4,223 |
| COLTA | \$5,556 | \$6,847 | \$1,291 |
| CORCULLA | \$2,307 | \$1,758 | -\$548 |
| LAMPA | \$4,473 | \$8,821 | \$4,348 |
| MARCABAMBA | \$2,307 | \$1,375 | -\$932 |
| OYOLO | \$3,390 | \$3,554 | \$165 |
| PARARCA | \$1,765 | \$1,681 | -\$84 |
| SAN JAVIER DE ALPABAMBA | \$1,765 | \$1,734 | -\$31 |
| QUEROBAMBA | \$1,765 | \$0 | -\$1,765 |
| CHILCAYOC | \$1,765 | \$123 | -\$1,642 |
| MORCOLLA | \$3,390 | \$6,331 | \$2,941 |
| PAICO | \$3,931 | \$3,035 | -\$896 |
| SAN PEDRO DE LARCAY | \$1,765 | \$966 | -\$800 |
| SAN SALVADOR DE QUIJE | \$1,765 | \$11 | -\$1,754 |
| SANTIAGO DE PAUCARAY | \$1,765 | \$927 | -\$838 |
| SORAS | \$1,765 | \$1,535 | -\$230 |
| HUANCAPI | \$2,848 | \$3,492 | \$644 |
| ALCAMENCA | \$7,180 | \$3,152 | -\$4,028 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------|----------|-----------|-----------|
| Municipios | | | |
| APONGO | \$3,390 | \$3,848 | \$459 |
| ASQUIPATA | \$1,765 | \$1,038 | -\$727 |
| CANARIA | \$4,473 | \$10,698 | \$6,225 |
| COLCA | \$4,473 | \$3,632 | -\$840 |
| HUAMANQUIQUIA | \$2,848 | \$2,034 | -\$814 |
| HUANCARAYLLA | \$9,346 | \$15,661 | \$6,315 |
| HUALLA | \$14,220 | \$36,710 | \$22,490 |
| SARHUA | \$4,473 | \$5,112 | \$639 |
| VILCANCHOS | \$8,805 | \$23,630 | \$14,825 |
| VILCAS HUAMAN | \$10,971 | \$17,619 | \$6,648 |
| ACCOMARCA | \$3,931 | \$3,983 | \$52 |
| CARHUANCA | \$3,931 | \$4,392 | \$461 |
| CONCEPCION | \$13,137 | \$25,321 | \$12,184 |
| HUAMBALPA | \$5,014 | \$5,976 | \$962 |
| INDEPENDENCIA | \$10,430 | \$13,615 | \$3,185 |
| SAURAMA | \$3,931 | \$7,520 | \$3,589 |
| VISCHONGO | \$14,220 | \$32,581 | \$18,361 |
| CAJAMARCA | \$5,014 | \$5,436 | \$422 |
| ASUNCION | \$7,722 | \$15,675 | \$7,953 |
| CHEWILLA | \$1,765 | \$1,085 | -\$680 |
| COSPAN | \$13,679 | \$27,242 | \$13,564 |
| ENCAÑADA | \$21,260 | \$48,494 | \$27,234 |
| JESUS | \$19,094 | \$57,054 | \$37,960 |
| LLACANORA | \$2,848 | \$1,951 | -\$897 |
| LOS BAÑOS DEL INCA | \$5,014 | \$6,348 | \$1,333 |
| MAGDALENA | \$7,722 | \$19,939 | \$12,218 |
| MATARA | \$2,307 | \$2,076 | -\$231 |
| NAMORA | \$11,513 | \$25,835 | \$14,322 |
| SAN JUAN | \$5,014 | \$12,930 | \$7,916 |
| CAJABAMBA | \$8,805 | \$24,430 | \$15,625 |
| CACHACHI | \$78,120 | \$222,021 | \$143,901 |
| CONDEBAMBA | \$26,675 | \$92,295 | \$65,620 |
| SITACUCHA | \$26,675 | \$58,333 | \$31,657 |
| CELENDIN | \$19,094 | \$22,162 | \$3,068 |
| CHUMUCH | \$6,639 | \$13,419 | \$6,780 |
| CORTEGANA | \$9,346 | \$13,791 | \$4,444 |
| HUASMIN | \$42,379 | \$82,811 | \$40,431 |
| JOSE GALVEZ | \$5,014 | \$27,965 | \$22,950 |
| MIGUEL IGLESIAS | \$20,177 | \$49,597 | \$29,420 |
| OXAMARCA | \$22,343 | \$47,985 | \$25,642 |

| País: Perú | Costo | VIPN | Beneficio |
|-----------------------------|----------|-----------|-----------|
| Municipios | | | |
| SOROCHUCO | \$33,715 | \$88,043 | \$54,328 |
| SUCRE | \$12,054 | \$29,175 | \$17,121 |
| UTCO | \$6,639 | \$8,376 | \$1,737 |
| LA LIBERTAD DE PALLAN | \$6,639 | \$11,631 | \$4,992 |
| CHOTA | \$11,513 | \$23,938 | \$12,425 |
| CHADIN | \$2,307 | \$2,384 | \$77 |
| CHIMBAN | \$1,765 | \$1,018 | -\$747 |
| CHOROPAMPA | \$5,556 | \$16,299 | \$10,743 |
| COCHABAMBA | \$10,430 | \$25,238 | \$14,809 |
| HUAMBOS | \$13,679 | \$27,880 | \$14,201 |
| LAJAS | \$3,390 | \$3,583 | \$193 |
| LLAMA | \$4,473 | \$5,044 | \$571 |
| MIRACOSTA | \$7,722 | \$10,202 | \$2,480 |
| QUEROCOTO | \$1,765 | \$1,959 | \$194 |
| TACABAMBA | \$14,762 | \$36,884 | \$22,122 |
| CHALAMARCA | \$2,848 | \$3,200 | \$351 |
| CONTUMAZA | \$55,376 | \$185,261 | \$129,885 |
| CHILETE | \$3,390 | \$18,184 | \$14,794 |
| CUPISNIQUE | \$14,220 | \$40,618 | \$26,397 |
| GUZMANGO | \$29,924 | \$72,741 | \$42,817 |
| SAN BENITO | \$7,722 | \$32,010 | \$24,288 |
| SANTA CRUZ DE TOLED | \$12,054 | \$27,280 | \$15,226 |
| TANTARICA | \$15,303 | \$39,684 | \$24,381 |
| YONAN | \$11,513 | \$69,516 | \$58,003 |
| CUTERVO | \$58,625 | \$144,765 | \$86,140 |
| CALLAYUC | \$36,423 | \$131,813 | \$95,390 |
| CHOROS | \$5,556 | \$19,765 | \$14,209 |
| CUJILLO | \$3,390 | \$6,945 | \$3,556 |
| LA RAMADA | \$7,722 | \$16,184 | \$8,462 |
| PIMPINGOS | \$14,220 | \$38,149 | \$23,929 |
| QUEROCOTILLO | \$25,051 | \$86,301 | \$61,250 |
| SAN ANDRES DE CUTERVO | \$1,765 | \$1,213 | -\$552 |
| SAN JUAN DE CUTERVO | \$7,722 | \$30,259 | \$22,537 |
| SAN LUIS DE LUCMA | \$13,137 | \$33,468 | \$20,331 |
| SANTA CRUZ | \$13,679 | \$43,695 | \$30,016 |
| SANTO DOMINGO DE LA CAPILLA | \$13,679 | \$34,767 | \$21,088 |
| SANTO TOMAS | \$21,260 | \$59,783 | \$38,523 |
| SOCOTA | \$32,090 | \$87,718 | \$55,627 |
| BAMBAMARCA | \$15,845 | \$31,906 | \$16,061 |
| CHUGUR | \$1,765 | \$1,399 | -\$366 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------------|----------|-----------|-----------|
| Municipios | | | |
| HUALGAYOC | \$17,469 | \$33,633 | \$16,163 |
| JAEN | \$30,466 | \$105,097 | \$74,631 |
| BELLAVISTA | \$10,430 | \$56,083 | \$45,653 |
| CHONTALI | \$9,346 | \$37,528 | \$28,182 |
| COLASAY | \$23,426 | \$91,156 | \$67,730 |
| HUABAL | \$21,260 | \$77,349 | \$56,089 |
| LAS PIRIAS | \$12,054 | \$90,773 | \$78,719 |
| POMAHUACA | \$23,968 | \$70,592 | \$46,624 |
| SALLIQUE | \$22,885 | \$83,584 | \$60,700 |
| SAN FELIPE | \$9,346 | \$22,506 | \$13,159 |
| SAN JOSE DEL ALTO | \$12,054 | \$58,544 | \$46,490 |
| SANTA ROSA | \$23,426 | \$120,502 | \$97,076 |
| SAN IGNACIO | \$46,712 | \$192,295 | \$145,584 |
| CHIRINOS | \$26,134 | \$98,660 | \$72,526 |
| HUARANGO | \$32,632 | \$126,780 | \$94,148 |
| LA COIPA | \$10,971 | \$33,936 | \$22,965 |
| NAMBALLE | \$16,386 | \$48,653 | \$32,267 |
| SAN JOSE DE LOURDES | \$25,051 | \$75,855 | \$50,805 |
| TABACONAS | \$34,257 | \$143,979 | \$109,722 |
| PEDRO GALVEZ | \$52,668 | \$172,227 | \$119,558 |
| CHANCA Y | \$4,473 | \$4,653 | \$181 |
| GREGORIO PITA | \$44,004 | \$140,021 | \$96,017 |
| ICHOCAN | \$3,931 | \$12,572 | \$8,641 |
| JOSE MANUEL QUIROZ | \$6,097 | \$24,751 | \$18,653 |
| JOSE SABOGAL | \$82,452 | \$351,732 | \$269,280 |
| SAN MIGUEL | \$23,968 | \$110,621 | \$86,653 |
| BOLIVAR | \$5,014 | \$5,441 | \$427 |
| CALQUIS | \$13,137 | \$29,531 | \$16,394 |
| CATILLUC | \$2,307 | \$2,825 | \$518 |
| EL PRADO | \$10,430 | \$16,981 | \$6,551 |
| LA FLORIDA | \$1,765 | \$112 | -\$1,653 |
| LLAPA | \$4,473 | \$4,912 | \$440 |
| NANCHOC | \$0 | \$0 | \$0 |
| NIEPOS | \$10,430 | \$16,482 | \$6,053 |
| SAN GREGORIO | \$8,805 | \$19,039 | \$10,234 |
| SAN SILVESTRE DE COCHAN | \$7,722 | \$12,515 | \$4,793 |
| TONGOD | \$5,014 | \$10,591 | \$5,577 |
| UNION AGUA BLANCA | \$14,762 | \$34,962 | \$20,201 |
| SAN PABLO | \$77,578 | \$185,375 | \$107,797 |
| SAN BERNARDINO | \$46,170 | \$109,621 | \$63,451 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------|----------|-----------|-----------|
| Municipios | | | |
| SAN LUIS | \$4,473 | \$9,604 | \$5,131 |
| TUMBADEN | \$35,340 | \$180,541 | \$145,201 |
| SANTA CRUZ | \$5,556 | \$4,817 | -\$739 |
| ANDABAMBA | \$2,848 | \$3,244 | \$396 |
| CATACHE | \$39,130 | \$129,455 | \$90,325 |
| CHANCAYBAÑOS | \$7,722 | \$13,569 | \$5,847 |
| LA ESPERANZA | \$7,180 | \$15,966 | \$8,786 |
| NINABAMBA | \$3,931 | \$6,132 | \$2,201 |
| PULAN | \$14,220 | \$33,515 | \$19,294 |
| SAUCEPAMPA | \$1,765 | \$54 | -\$1,711 |
| SEXI | \$1,765 | \$969 | -\$796 |
| UTICYACU | \$7,180 | \$16,505 | \$9,325 |
| YAUYUCAN | \$10,430 | \$31,023 | \$20,593 |
| CUSCO | \$2,848 | \$4,736 | \$1,888 |
| CCORCA | \$4,473 | \$8,279 | \$3,806 |
| POROY | \$2,307 | \$99 | -\$2,208 |
| SAN JERONIMO | \$1,765 | \$1,443 | -\$322 |
| SAN SEBASTIAN | \$2,848 | \$129 | -\$2,719 |
| SANTIAGO | \$3,931 | \$3,841 | -\$90 |
| SAYLLA | \$2,307 | \$214 | -\$2,093 |
| ACOMAYO | \$11,513 | \$20,925 | \$9,413 |
| ACOPIA | \$4,473 | \$5,265 | \$792 |
| ACOS | \$4,473 | \$9,354 | \$4,881 |
| MOSOC LLACTA | \$2,848 | \$2,527 | -\$322 |
| POMACANCHI | \$5,014 | \$5,769 | \$755 |
| RONDOCAN | \$9,888 | \$26,459 | \$16,571 |
| SANGARARA | \$5,014 | \$9,400 | \$4,386 |
| ANTA | \$6,097 | \$14,362 | \$8,265 |
| ANCAHUASI | \$2,307 | \$2,534 | \$228 |
| CACHIMAYO | \$1,765 | \$1,378 | -\$387 |
| CHINCHAYPUJIO | \$9,888 | \$39,120 | \$29,232 |
| HUAROCONDO | \$2,307 | \$3,663 | \$1,356 |
| LIMATAMBO | \$8,805 | \$25,170 | \$16,365 |
| MOLLEPATA | \$3,390 | \$5,276 | \$1,886 |
| PUCYURA | \$2,848 | \$69,214 | \$66,366 |
| ZURITE | \$4,473 | \$10,233 | \$5,760 |
| CALCA | \$14,762 | \$36,814 | \$22,052 |
| COYA | \$1,765 | \$1,345 | -\$420 |
| LAMAY | \$8,805 | \$16,118 | \$7,313 |
| LADES | \$9,346 | \$21,487 | \$12,141 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------|----------|-----------|-----------|
| Municipios | | | |
| PISAC | \$4,473 | \$8,449 | \$3,977 |
| SAN SALVADOR | \$3,390 | \$4,176 | \$786 |
| YANATILE | \$5,014 | \$18,866 | \$13,852 |
| YANAOCA | \$15,845 | \$31,516 | \$15,671 |
| CHECCA | \$23,426 | \$66,002 | \$42,576 |
| KUNTURKANKI | \$14,762 | \$29,141 | \$14,380 |
| LANGUI | \$3,931 | \$1,971 | -\$1,961 |
| LAYO | \$12,054 | \$58,231 | \$46,177 |
| PAMPAMARCA | \$1,765 | \$1,090 | -\$675 |
| QUEHUE | \$9,346 | \$14,171 | \$4,825 |
| TUPAC AMARU | \$3,931 | \$5,405 | \$1,474 |
| SICUANI | \$12,054 | \$17,547 | \$5,492 |
| CHECACUPE | \$6,639 | \$29,102 | \$22,463 |
| COMBAPATA | \$3,931 | \$6,586 | \$2,655 |
| MARANGANI | \$9,888 | \$14,926 | \$5,038 |
| PITUMARCA | \$20,177 | \$95,426 | \$75,249 |
| SAN PABLO | \$2,307 | \$3,473 | \$1,166 |
| SAN PEDRO | \$1,765 | \$1,205 | -\$560 |
| TINTA | \$6,097 | \$18,902 | \$12,805 |
| SANTO TOMAS | \$19,635 | \$42,121 | \$22,486 |
| CAPACMARCA | \$6,097 | \$8,688 | \$2,591 |
| CHAMACA | \$18,011 | \$49,512 | \$31,501 |
| COLQUEMARCA | \$8,263 | \$7,360 | -\$904 |
| LIVITACA | \$31,549 | \$101,084 | \$69,535 |
| LLUSCO | \$3,390 | \$2,010 | -\$1,380 |
| QUIÑOTA | \$4,473 | \$13,571 | \$9,098 |
| VELILLE | \$12,054 | \$36,253 | \$24,199 |
| ESPINAR | \$34,257 | \$138,179 | \$103,923 |
| COPORAQUE | \$55,917 | \$192,394 | \$136,476 |
| OCORURO | \$12,596 | \$45,480 | \$32,884 |
| PALLPATA | \$26,134 | \$137,693 | \$111,560 |
| PICHIGUA | \$15,845 | \$73,197 | \$57,352 |
| SUYCKUTAMBO | \$7,722 | \$20,569 | \$12,847 |
| ALTO PICHIGUA | \$25,051 | \$114,399 | \$89,349 |
| SANTA ANA | \$1,765 | \$665 | -\$1,100 |
| ECHARATE | \$45,629 | \$139,684 | \$94,055 |
| HUAYOPATA | \$4,473 | \$4,859 | \$387 |
| MARANURA | \$0 | \$0 | \$0 |
| OCOBAMBA | \$2,307 | \$4,780 | \$2,473 |
| QUELLOUNO | \$15,845 | \$39,116 | \$23,271 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------|----------|-----------|-----------|
| Municipios | | | |
| KIMBIRI | \$8,805 | \$41,212 | \$32,407 |
| SANTA TERESA | \$6,639 | \$10,037 | \$3,399 |
| VILCABAMBA | \$25,592 | \$45,545 | \$19,953 |
| PICHARI | \$2,848 | \$9,078 | \$6,230 |
| PARURO | \$6,639 | \$14,675 | \$8,036 |
| ACCHA | \$6,639 | \$15,276 | \$8,637 |
| CCAPI | \$8,263 | \$37,109 | \$28,845 |
| HUANOQUITE | \$10,430 | \$23,031 | \$12,601 |
| OMACHA | \$7,180 | \$16,881 | \$9,701 |
| PACCARITAMBO | \$1,765 | \$4,108 | \$2,343 |
| PILLPINTO | \$2,307 | \$3,182 | \$876 |
| YAUQUISQUE | \$2,848 | \$2,891 | \$43 |
| PAUCARTAMBO | \$20,177 | \$60,253 | \$40,076 |
| CAICAY | \$6,639 | \$20,415 | \$13,776 |
| CHALLABAMBA | \$35,340 | \$133,542 | \$98,202 |
| COLQUEPATA | \$12,596 | \$35,189 | \$22,594 |
| HUANCARANI | \$2,307 | \$2,234 | -\$73 |
| KOSÑIPATA | \$5,014 | \$16,370 | \$11,356 |
| URCOS | \$2,848 | \$3,133 | \$284 |
| ANDAHUAYLILLAS | \$2,307 | \$309 | -\$1,998 |
| CCARHUAYO | \$2,307 | \$3,156 | \$849 |
| CCATCA | \$6,097 | \$5,184 | -\$914 |
| CUSIPATA | \$7,722 | \$13,946 | \$6,224 |
| HUARO | \$2,307 | \$3,824 | \$1,517 |
| LUCRE | \$3,931 | \$8,288 | \$4,357 |
| MARCAPATA | \$11,513 | \$22,533 | \$11,021 |
| OCONGATE | \$18,552 | \$65,174 | \$46,622 |
| QUIQUIJANA | \$15,303 | \$39,912 | \$24,609 |
| URUBAMBA | \$3,931 | \$6,161 | \$2,230 |
| CHINCHERO | \$5,014 | \$10,778 | \$5,764 |
| HUAYLLABAMBA | \$2,848 | \$4,886 | \$2,038 |
| MARAS | \$2,848 | \$4,148 | \$1,300 |
| OLLANTAYTAMBO | \$7,180 | \$23,951 | \$16,771 |
| HUANCAVELICA | \$6,097 | \$7,657 | \$1,560 |
| ACOBAMBILLA | \$5,014 | \$17,121 | \$12,107 |
| ACORIA | \$14,762 | \$28,945 | \$14,183 |
| CUENCA | \$2,307 | \$2,229 | -\$78 |
| HUACHOCOLPA | \$7,180 | \$39,540 | \$32,360 |
| IZCUCHACA | \$1,765 | \$1,951 | \$185 |
| MANTA | \$3,390 | \$4,392 | \$1,002 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------------|----------|----------|-----------|
| Municipios | | | |
| MOYA | \$1,765 | \$1,016 | -\$749 |
| PALCA | \$2,307 | \$1,143 | -\$1,164 |
| VILCA | \$3,390 | \$6,134 | \$2,744 |
| YAULI | \$16,928 | \$38,772 | \$21,844 |
| HUANDO | \$8,805 | \$21,177 | \$12,372 |
| ACOBAMBA | \$2,848 | \$4,584 | \$1,735 |
| ANDABAMBA | \$7,180 | \$12,052 | \$4,871 |
| ANTA | \$9,346 | \$18,387 | \$9,040 |
| CAJA | \$2,848 | \$2,427 | -\$421 |
| MARCAS | \$2,848 | \$3,445 | \$597 |
| PAUCARA | \$18,552 | \$42,715 | \$24,163 |
| POMACOCCHA | \$3,931 | \$3,218 | -\$713 |
| ROSARIO | \$9,888 | \$25,280 | \$15,392 |
| LIRCAY | \$22,343 | \$64,441 | \$42,098 |
| ANCHONGA | \$12,596 | \$27,652 | \$15,057 |
| CALLANMARCA | \$2,307 | \$3,388 | \$1,081 |
| CCOCHACCASA | \$1,765 | \$931 | -\$834 |
| CONGALLA | \$8,805 | \$16,949 | \$8,144 |
| HUANCA-HUANCA | \$7,722 | \$18,345 | \$10,623 |
| HUAYLLAY GRANDE | \$2,848 | \$3,246 | \$398 |
| JULCAMARCA | \$3,931 | \$4,948 | \$1,017 |
| SAN ANTONIO DE ANTAPARCO | \$1,765 | \$1,463 | -\$302 |
| SANTO TOMAS DE PATA | \$3,931 | \$3,625 | -\$307 |
| SECCLLA | \$3,390 | \$5,408 | \$2,019 |
| CASTROVIRREYNA | \$2,307 | \$1,318 | -\$989 |
| ARMA | \$6,097 | \$9,755 | \$3,658 |
| AURAHUA | \$6,097 | \$14,568 | \$8,470 |
| CAPILLAS | \$4,473 | \$26,178 | \$21,705 |
| COCAS | \$4,473 | \$6,067 | \$1,594 |
| HUACHOS | \$2,848 | \$1,748 | -\$1,100 |
| HUAMATAMBO | \$4,473 | \$14,132 | \$9,659 |
| MOLLEPAMPA | \$7,722 | \$20,193 | \$12,472 |
| SAN JUAN | \$2,307 | \$2,463 | \$156 |
| TICRAPO | \$2,848 | \$8,873 | \$6,025 |
| CHURCAMPA | \$2,848 | \$1,420 | -\$1,429 |
| ANCO | \$15,845 | \$37,056 | \$21,212 |
| CHINCHIHUASI | \$5,014 | \$8,744 | \$3,730 |
| EL CARMEN | \$1,765 | \$1,771 | \$6 |
| LOCROJA | \$6,639 | \$10,750 | \$4,111 |
| PAUCARBAMBA | \$10,430 | \$20,308 | \$9,878 |

| País: Perú | Costo | VIPN | Beneficio |
|-----------------------------|----------|-----------|-----------|
| Municipios | | | |
| SAN MIGUEL DE MAYOCC | \$2,848 | \$1,270 | -\$1,578 |
| SAN PEDRO DE CORIS | \$4,473 | \$5,923 | \$1,451 |
| PACHAMARCA | \$8,263 | \$17,942 | \$9,678 |
| COSME | \$4,473 | \$9,022 | \$4,549 |
| HUAYTARA | \$2,307 | \$2,367 | \$61 |
| AYAVI | \$5,014 | \$13,274 | \$8,260 |
| CORDOVA | \$10,430 | \$38,868 | \$28,439 |
| LARAMARCA | \$1,765 | \$1,583 | -\$183 |
| OCOYO | \$6,639 | \$20,479 | \$13,841 |
| PILPICHACA | \$1,765 | \$1,631 | -\$135 |
| QUERCO | \$1,765 | \$1,450 | -\$316 |
| QUITO-ARMA | \$9,888 | \$31,138 | \$21,250 |
| SAN ANTONIO DE CUSICANCHA | \$9,888 | \$26,302 | \$16,414 |
| SAN FRANCISCO DE SANGAYAICO | \$2,307 | \$2,780 | \$473 |
| SAN ISIDRO | \$2,307 | \$2,877 | \$570 |
| SANTIAGO DE CHOCORVOS | \$25,592 | \$74,374 | \$48,782 |
| SANTIAGO DE QUIRAHUARA | \$6,639 | \$22,763 | \$16,124 |
| SANTO DOMINGO DE CAPILLAS | \$1,765 | \$1,242 | -\$523 |
| ACOSTAMBO | \$3,390 | \$6,020 | \$2,631 |
| ACRAQUIA | \$2,307 | \$3,441 | \$1,134 |
| AHUAYCHA | \$5,556 | \$8,231 | \$2,675 |
| COLCABAMBA | \$6,097 | \$18,909 | \$12,811 |
| DANIEL HERNANDEZ | \$2,848 | \$3,286 | \$438 |
| HUACHOCOLPA | \$5,556 | \$18,746 | \$13,190 |
| HUARIBAMBA | \$8,805 | \$18,849 | \$10,044 |
| ÑAHUIMPUQUIO | \$2,848 | \$4,058 | \$1,210 |
| PAZOS | \$2,307 | \$2,240 | -\$67 |
| SALCABAMBA | \$7,180 | \$18,616 | \$11,436 |
| SALCAHUASI | \$3,931 | \$3,638 | -\$293 |
| SAN MARCOS DE ROCCHAC | \$1,765 | \$1,039 | -\$726 |
| SURCUBAMBA | \$14,220 | \$44,981 | \$30,761 |
| TINTAY PUNCU | \$2,307 | \$2,644 | \$337 |
| HUANUCO | \$6,639 | \$11,196 | \$4,557 |
| AMARILIS | \$2,848 | \$2,182 | -\$666 |
| CHINCHAO | \$28,841 | \$123,739 | \$94,898 |
| CHURUBAMBA | \$39,130 | \$105,079 | \$65,948 |
| MARGOS | \$5,014 | \$20,563 | \$15,549 |
| QUISQUI (KICHKI) | \$7,722 | \$105,680 | \$97,958 |
| SAN FRANCISCO DE CAYRAN | \$6,097 | \$20,875 | \$14,777 |
| SAN PEDRO DE CHAULAN | \$3,390 | \$8,878 | \$5,488 |

| País: Perú | Costo | VIPN | Beneficio |
|------------------------|----------|-----------|-----------|
| Municipios | | | |
| SANTA MARIA DEL VALLE | \$27,217 | \$107,241 | \$80,025 |
| YARUMAYO | \$1,765 | \$1,549 | -\$217 |
| YACUS | \$3,931 | \$6,285 | \$2,354 |
| AMBO | \$9,346 | \$23,172 | \$13,826 |
| CAYNA | \$2,307 | \$3,338 | \$1,031 |
| COLPAS | \$7,180 | \$23,591 | \$16,410 |
| CONCHAMARCA | \$6,097 | \$9,797 | \$3,699 |
| HUACAR | \$12,054 | \$20,170 | \$8,116 |
| SAN RAFAEL | \$5,556 | \$16,746 | \$11,190 |
| TOMAY KICHWA | \$2,848 | \$7,304 | \$4,456 |
| LA UNION | \$5,014 | \$20,753 | \$15,739 |
| CHUQUIS | \$13,679 | \$17,410 | \$3,731 |
| MARIAS | \$27,758 | \$76,814 | \$49,056 |
| PACHAS | \$16,928 | \$37,151 | \$20,224 |
| QUIVILLA | \$6,097 | \$10,403 | \$4,305 |
| RIPAN | \$4,473 | \$2,038 | -\$2,434 |
| SHUNQUI | \$8,263 | \$10,127 | \$1,863 |
| SILLAPATA | \$7,180 | \$11,184 | \$4,004 |
| YANAS | \$16,386 | \$30,879 | \$14,493 |
| HUACAYBAMBA | \$6,097 | \$6,574 | \$477 |
| CANCHABAMBA | \$5,014 | \$4,576 | -\$438 |
| COCHABAMBA | \$1,765 | \$19 | -\$1,746 |
| PINRA | \$7,180 | \$11,549 | \$4,368 |
| LLATA | \$26,675 | \$57,321 | \$30,646 |
| CHAVIN DE PARIARCA | \$12,054 | \$32,450 | \$20,396 |
| JACAS GRANDE | \$21,802 | \$43,276 | \$21,474 |
| JIRCAN | \$3,390 | \$3,781 | \$391 |
| MIRAFLORES | \$7,722 | \$14,298 | \$6,576 |
| MONZON | \$20,177 | \$36,748 | \$16,571 |
| PUNCHAO | \$6,639 | \$15,816 | \$9,177 |
| PUÑOS | \$15,845 | \$34,081 | \$18,236 |
| SINGA | \$3,390 | \$209 | -\$3,181 |
| TANTAMAYO | \$6,639 | \$13,966 | \$7,327 |
| RUPA-RUPA | \$20,718 | \$72,878 | \$52,160 |
| DANIEL ALOMIA ROBLES | \$28,841 | \$101,801 | \$72,960 |
| HERMILIO VALDIZAN | \$15,303 | \$55,445 | \$40,141 |
| JOSE CRESPO Y CASTILLO | \$51,585 | \$169,623 | \$118,038 |
| LUYANDO | \$8,263 | \$11,708 | \$3,444 |
| MARIANO DAMASO BERAUN | \$13,137 | \$22,346 | \$9,209 |
| HUACRACHUCO | \$22,885 | \$51,564 | \$28,680 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------------|----------|-----------|-----------|
| Municipios | | | |
| CHOLON | \$61,874 | \$338,168 | \$276,294 |
| SAN BUENAVENTURA | \$14,220 | \$32,925 | \$18,705 |
| PANAO | \$32,632 | \$156,632 | \$124,000 |
| CHAGLLA | \$16,928 | \$55,462 | \$38,535 |
| MOLINO | \$16,386 | \$88,010 | \$71,624 |
| UMARI | \$31,007 | \$170,724 | \$139,717 |
| PUERTO INCA | \$25,592 | \$100,274 | \$74,682 |
| CODO DEL POZUZO | \$32,632 | \$444,326 | \$411,694 |
| HONORIA | \$29,383 | \$70,868 | \$41,485 |
| TOURNAVISTA | \$28,841 | \$189,456 | \$160,614 |
| YUYAPICHIS | \$14,220 | \$56,806 | \$42,585 |
| JESUS | \$24,509 | \$70,028 | \$45,519 |
| BAÑOS | \$13,137 | \$27,130 | \$13,993 |
| JIVIA | \$12,596 | \$24,507 | \$11,911 |
| QUEROPALCA | \$9,346 | \$28,899 | \$19,553 |
| RONDOS | \$34,798 | \$112,918 | \$78,120 |
| SAN FRANCISCO DE ASIS | \$7,722 | \$23,468 | \$15,746 |
| SAN MIGUEL DE CAURI | \$17,469 | \$56,934 | \$39,465 |
| CHAVINILLO | \$33,715 | \$72,889 | \$39,174 |
| CAHUAC | \$7,180 | \$12,719 | \$5,538 |
| CHACABAMBA | \$19,094 | \$71,322 | \$52,228 |
| APARICIO POMARES | \$28,841 | \$80,388 | \$51,547 |
| JACAS CHICO | \$5,014 | \$8,610 | \$3,596 |
| OBAS | \$46,170 | \$182,569 | \$136,399 |
| PAMPAMARCA | \$10,971 | \$23,589 | \$12,617 |
| CHORAS | \$15,303 | \$52,550 | \$37,247 |
| OCUCAJE | \$12,054 | \$110,536 | \$98,482 |
| PUEBLO NUEVO | \$1,765 | \$2,830 | \$1,065 |
| SAN JOSE DE LOS MOLINOS | \$3,390 | \$6,746 | \$3,356 |
| SANTIAGO | \$1,765 | \$1,387 | -\$378 |
| TATE | \$2,307 | \$2,817 | \$510 |
| YAUCA DEL ROSARIO | \$2,307 | \$2,390 | \$83 |
| ALTO LARAN | \$6,639 | \$122,474 | \$115,835 |
| CHAVIN | \$12,596 | \$41,815 | \$29,220 |
| CHINCHA BAJA | \$2,307 | \$30,959 | \$28,652 |
| EL CARMEN | \$2,848 | \$13,296 | \$10,447 |
| GROCIO PRADO | \$13,679 | \$144,397 | \$130,718 |
| SAN JUAN DE YANAC | \$12,054 | \$26,201 | \$14,147 |
| SAN PEDRO DE HUACARPANA | \$8,263 | \$12,270 | \$4,007 |
| NASCA | \$9,346 | \$30,621 | \$21,275 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------------------|----------|-----------|-----------|
| Municipios | | | |
| CHANGUILLO | \$2,307 | \$11,705 | \$9,398 |
| EL INGENIO | \$2,307 | \$2,442 | \$135 |
| VISTA ALEGRE | \$8,263 | \$143,483 | \$135,219 |
| PALPA | \$3,390 | \$12,873 | \$9,484 |
| LLIPATA | \$3,390 | \$42,795 | \$39,405 |
| RIO GRANDE | \$3,931 | \$7,711 | \$3,780 |
| SANTA CRUZ | \$2,307 | \$1,528 | -\$779 |
| TIBILLO | \$6,639 | \$45,693 | \$39,054 |
| HUMAY | \$1,765 | \$8,270 | \$6,504 |
| INDEPENDENCIA | \$3,390 | \$13,960 | \$10,571 |
| SAN ANDRES | \$2,307 | \$2,083 | -\$224 |
| SAN CLEMENTE | \$1,765 | \$3,458 | \$1,693 |
| TUPAC AMARU INCA | \$2,848 | \$5,856 | \$3,008 |
| CHICCHE | \$1,765 | \$1,028 | -\$738 |
| CHONGOS ALTO | \$3,931 | \$3,883 | -\$48 |
| COLCA | \$1,765 | \$960 | -\$805 |
| CULLHUAS | \$2,848 | \$5,529 | \$2,680 |
| EL TAMBO | \$2,848 | \$2,987 | \$139 |
| HUALHUAS | \$1,765 | \$1,213 | -\$552 |
| HUASICANCHA | \$2,848 | \$4,105 | \$1,257 |
| HUAYUCACHI | \$1,765 | \$1,172 | -\$593 |
| PARIAHUANCA | \$4,473 | \$7,614 | \$3,141 |
| PUCARA | \$2,307 | \$2,566 | \$259 |
| SAN AGUSTIN | \$2,307 | \$6,014 | \$3,707 |
| SAPALLANGA | \$2,307 | \$4,160 | \$1,854 |
| SANTO DOMINGO DE ACOBAMBA | \$11,513 | \$29,293 | \$17,780 |
| ACO | \$2,307 | \$2,893 | \$586 |
| ANDAMARCA | \$32,632 | \$67,577 | \$34,945 |
| CHAMBARA | \$7,722 | \$14,770 | \$7,049 |
| COCHAS | \$3,390 | \$6,650 | \$3,261 |
| COMAS | \$14,220 | \$48,386 | \$34,166 |
| HEROINAS TOLEDO | \$2,307 | \$2,016 | -\$290 |
| MANZANARES | \$1,765 | \$956 | -\$809 |
| SAN JOSE DE QUERO | \$1,765 | \$1,288 | -\$477 |
| SANTA ROSA DE OCOPA | \$2,307 | \$2,716 | \$410 |
| CHANCHAMAYO | \$14,220 | \$51,761 | \$37,541 |
| PERENE | \$48,336 | \$224,251 | \$175,915 |
| PICHANAQUI | \$73,246 | \$361,469 | \$288,223 |
| SAN LUIS DE SHUARO | \$4,473 | \$38,248 | \$33,775 |
| SAN RAMON | \$10,430 | \$30,380 | \$19,951 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------|----------|-----------|-----------|
| Municipios | | | |
| VITOC | \$2,307 | \$4,303 | \$1,996 |
| ACOLLA | \$2,307 | \$2,663 | \$356 |
| APATA | \$1,765 | \$1,078 | -\$687 |
| HUERTAS | \$1,765 | \$941 | -\$824 |
| MASMA | \$3,390 | \$1,329 | -\$2,061 |
| MOLINOS | \$1,765 | \$1,177 | -\$588 |
| MONOBAMBA | \$1,765 | \$5,845 | \$4,080 |
| PACA | \$1,765 | \$16 | -\$1,749 |
| PACCHA | \$2,848 | \$3,608 | \$759 |
| PANCAN | \$1,765 | \$3 | -\$1,763 |
| PARCO | \$2,307 | \$4,434 | \$2,127 |
| POMACANCHA | \$2,307 | \$2,386 | \$79 |
| SINCOS | \$4,473 | \$16,434 | \$11,962 |
| JUNIN | \$2,307 | \$30,041 | \$27,734 |
| CARHUAMAYO | \$3,931 | \$13,642 | \$9,710 |
| ONDORES | \$3,931 | \$9,972 | \$6,041 |
| ULCUMAYO | \$20,718 | \$119,234 | \$98,515 |
| SATIPO | \$24,509 | \$76,548 | \$52,039 |
| COVIRIALI | \$1,765 | \$24,330 | \$22,565 |
| LLAYLLA | \$10,430 | \$25,425 | \$14,996 |
| PAMPA HERMOSA | \$18,011 | \$62,797 | \$44,786 |
| RIO NEGRO | \$26,675 | \$119,298 | \$92,623 |
| RIO TAMBO | \$67,831 | \$464,514 | \$396,683 |
| VIZCATAN DEL ENE | \$62,416 | \$288,371 | \$225,956 |
| TARMA | \$2,307 | \$120 | -\$2,186 |
| ACOBAMBA | \$1,765 | \$207 | -\$1,558 |
| HUARICOLCA | \$1,765 | \$0 | -\$1,765 |
| HUASAHUASI | \$9,346 | \$30,776 | \$21,429 |
| PALCA | \$3,390 | \$10,043 | \$6,653 |
| PALCAMAYO | \$2,307 | \$3,990 | \$1,683 |
| SAN PEDRO DE CAJAS | \$2,848 | \$5,211 | \$2,363 |
| TAPO | \$9,346 | \$20,565 | \$11,219 |
| CHACAPALPA | \$1,765 | \$5,497 | \$3,732 |
| PACCHA | \$2,307 | \$4,726 | \$2,419 |
| CHUPACA | \$6,097 | \$11,078 | \$4,981 |
| AHUAC | \$4,473 | \$6,073 | \$1,600 |
| CHONGOS BAJO | \$1,765 | \$2,514 | \$748 |
| HUAMANCACA CHICO | \$1,765 | \$1,127 | -\$638 |
| SAN JUAN DE ISCOS | \$2,848 | \$2,071 | -\$777 |
| SAN JUAN DE JARPA | \$8,263 | \$24,939 | \$16,675 |

| País: Perú | Costo | VIPN | Beneficio |
|------------------|----------|-----------|-----------|
| Municipios | | | |
| YANACANCHA | \$12,596 | \$26,862 | \$14,266 |
| TRUJILLO | \$1,765 | \$19,976 | \$18,211 |
| LAREDO | \$3,931 | \$11,448 | \$7,517 |
| POROTO | \$1,765 | \$1,520 | -\$246 |
| SIMBAL | \$1,765 | \$1,260 | -\$505 |
| ASCOPE | \$3,931 | \$34,570 | \$30,639 |
| CHICAMA | \$1,765 | \$1,011 | -\$754 |
| CHOCOPE | \$4,473 | \$156,136 | \$151,663 |
| MAGDALENA DE CAO | \$1,765 | \$16,478 | \$14,713 |
| PAIJAN | \$2,848 | \$3,648 | \$800 |
| RAZURI | \$5,014 | \$50,933 | \$45,919 |
| SANTIAGO DE CAO | \$2,848 | \$21,973 | \$19,125 |
| CASA GRANDE | \$4,473 | \$54,313 | \$49,840 |
| BOLIVAR | \$31,007 | \$43,089 | \$12,082 |
| BAMBAMARCA | \$13,679 | \$20,333 | \$6,654 |
| CONDORMARCA | \$2,307 | \$2,093 | -\$214 |
| LONGOTEA | \$3,931 | \$5,393 | \$1,462 |
| UCHUMARCA | \$14,220 | \$18,470 | \$4,250 |
| UCUNCHA | \$7,722 | \$23,801 | \$16,079 |
| CHEPEN | \$8,805 | \$290,812 | \$282,007 |
| PACANGA | \$18,552 | \$267,332 | \$248,780 |
| PUEBLO NUEVO | \$8,263 | \$56,474 | \$48,211 |
| JULCAN | \$20,177 | \$31,231 | \$11,054 |
| CALAMARCA | \$38,589 | \$98,785 | \$60,197 |
| CARABAMBA | \$10,430 | \$21,865 | \$11,436 |
| HUASO | \$45,629 | \$147,583 | \$101,954 |
| OTUZCO | \$5,014 | \$15,621 | \$10,607 |
| AGALLPAMPA | \$2,307 | \$1,798 | -\$509 |
| HUARANCHAL | \$2,307 | \$2,375 | \$69 |
| SALPO | \$1,765 | \$1,172 | -\$593 |
| SINSICAP | \$8,263 | \$26,763 | \$18,500 |
| USQUIL | \$16,386 | \$38,148 | \$21,762 |
| GUADALUPE | \$3,931 | \$32,998 | \$29,067 |
| JEQUETEPEQUE | \$1,765 | \$9,331 | \$7,566 |
| SAN JOSE | \$2,307 | \$9,868 | \$7,562 |
| TAYABAMBA | \$14,762 | \$22,142 | \$7,381 |
| BULDIBUYO | \$1,765 | \$5,796 | \$4,031 |
| CHILLIA | \$8,805 | \$17,876 | \$9,071 |
| HUANCASPATA | \$5,556 | \$8,274 | \$2,718 |
| HUAYLILLAS | \$3,931 | \$2,040 | -\$1,892 |

| País: Perú | Costo | VIPN | Beneficio |
|-----------------------------|----------|-----------|-----------|
| Municipios | | | |
| HUAYO | \$3,390 | \$5,822 | \$2,432 |
| PARCOY | \$3,931 | \$5,562 | \$1,630 |
| TAURIJA | \$1,765 | \$964 | -\$801 |
| URPAY | \$4,473 | \$5,937 | \$1,464 |
| HUAMACHUCO | \$28,841 | \$69,337 | \$40,496 |
| CHUGAY | \$20,177 | \$45,416 | \$25,239 |
| COCHORCO | \$23,968 | \$52,561 | \$28,593 |
| CURGOS | \$8,263 | \$17,213 | \$8,949 |
| MARCABAL | \$14,762 | \$22,429 | \$7,667 |
| SANAGORAN | \$36,423 | \$102,257 | \$65,835 |
| SARIN | \$6,639 | \$13,137 | \$6,498 |
| SARTIMBAMBA | \$21,802 | \$76,340 | \$54,539 |
| SANTIAGO DE CHUCO | \$34,798 | \$71,585 | \$36,787 |
| ANGASMARCA | \$12,054 | \$37,643 | \$25,589 |
| CACHICADAN | \$12,054 | \$49,881 | \$37,827 |
| MOLLEPATA | \$1,765 | \$1,124 | -\$641 |
| QUIRUVILCA | \$11,513 | \$30,081 | \$18,569 |
| SANTA CRUZ DE CHUCA | \$6,639 | \$10,246 | \$3,608 |
| SITABAMBA | \$5,556 | \$12,945 | \$7,390 |
| CASCAS | \$18,011 | \$60,971 | \$42,960 |
| LUCMA | \$18,552 | \$52,797 | \$34,245 |
| MARMOT | \$2,307 | \$1,213 | -\$1,094 |
| SAYAPULLO | \$34,798 | \$78,539 | \$43,741 |
| VIRU | \$6,639 | \$75,410 | \$68,771 |
| CHAO | \$15,845 | \$75,347 | \$59,502 |
| CHONGOYAPE | \$2,848 | \$31,669 | \$28,821 |
| ETEN | \$1,765 | \$1,223 | -\$542 |
| JOSE LEONARDO ORTIZ | \$2,848 | \$34,319 | \$31,471 |
| LAGUNAS | \$1,765 | \$2,095 | \$330 |
| MONSEFU | \$5,556 | \$15,955 | \$10,399 |
| OYOTUN | \$2,307 | \$10,255 | \$7,949 |
| PICSI | \$4,473 | \$30,021 | \$25,548 |
| CAYALTI | \$3,931 | \$24,733 | \$20,802 |
| POMALCA | \$1,765 | \$0 | -\$1,765 |
| TUMAN | \$2,307 | \$1,836 | -\$471 |
| CAÑARIS | \$34,798 | \$73,233 | \$38,435 |
| INCAHUASI | \$58,625 | \$132,330 | \$73,705 |
| MANUEL ANTONIO MESONES MURO | \$5,556 | \$22,460 | \$16,904 |
| PITIPO | \$17,469 | \$125,169 | \$107,700 |
| LAMBAYEQUE | \$3,931 | \$16,883 | \$12,952 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------------|----------|-----------|-----------|
| Municipios | | | |
| JAYANCA | \$1,765 | \$1,259 | -\$506 |
| MORROPE | \$3,390 | \$9,951 | \$6,561 |
| MOTUPE | \$12,596 | \$75,133 | \$62,537 |
| OLMOS | \$5,556 | \$10,930 | \$5,375 |
| SALAS | \$17,469 | \$35,985 | \$18,515 |
| CARABAYLLO | \$4,473 | \$82,723 | \$78,250 |
| CIENEGUILLA | \$3,390 | \$4,636 | \$1,246 |
| PARAMONGA | \$7,722 | \$80,011 | \$72,289 |
| PATIVILCA | \$1,765 | \$1,179 | -\$586 |
| SUPE | \$10,971 | \$106,610 | \$95,639 |
| CAJATAMBO | \$1,765 | \$1,120 | -\$645 |
| COPA | \$1,765 | \$43 | -\$1,723 |
| GORGOR | \$8,263 | \$46,790 | \$38,526 |
| HUANCAPON | \$3,390 | \$7,804 | \$4,414 |
| MANAS | \$2,848 | \$8,241 | \$5,393 |
| SANTA ROSA DE QUIVES | \$4,473 | \$56,165 | \$51,692 |
| SAN VICENTE DE CAÑETE | \$3,390 | \$7,887 | \$4,497 |
| ASIA | \$1,765 | \$123 | -\$1,642 |
| CALANGO | \$1,765 | \$160 | -\$1,606 |
| CERRO AZUL | \$1,765 | \$1,250 | -\$515 |
| COAYLLO | \$3,931 | \$15,794 | \$11,863 |
| IMPERIAL | \$2,307 | \$2,626 | \$319 |
| NUEVO IMPERIAL | \$1,765 | \$0 | -\$1,765 |
| QUILMANA | \$5,014 | \$27,170 | \$22,155 |
| SANTA CRUZ DE FLORES | \$1,765 | \$120 | -\$1,645 |
| ZUÑIGA | \$1,765 | \$598 | -\$1,167 |
| HUARAL | \$7,180 | \$235,512 | \$228,331 |
| ATAVILLOS BAJO | \$2,307 | \$2,258 | -\$48 |
| AUCALLAMA | \$2,848 | \$5,083 | \$2,235 |
| CHANCAY | \$2,307 | \$86 | -\$2,221 |
| IHUARI | \$17,469 | \$77,724 | \$60,255 |
| LAMPIAN | \$1,765 | \$53 | -\$1,712 |
| SANTA CRUZ DE ANDAMARCA | \$1,765 | \$2,155 | \$389 |
| MATUCANA | \$3,390 | \$13,411 | \$10,021 |
| ANTIOQUIA | \$2,307 | \$12,101 | \$9,795 |
| LAHUAYTAMBO | \$1,765 | \$545 | -\$1,220 |
| LANGA | \$1,765 | \$149 | -\$1,616 |
| MARIATANA | \$1,765 | \$0 | -\$1,765 |
| SAN MATEO DE OTAO | \$5,014 | \$13,024 | \$8,010 |
| SAN PEDRO DE CASTA | \$2,307 | \$275 | -\$2,031 |

| País: Perú | Costo | VIPN | Beneficio |
|------------------------------|----------|-----------|-----------|
| Municipios | | | |
| SANTA CRUZ DE COCACHACRA | \$1,765 | \$16 | -\$1,749 |
| SANTIAGO DE TUNA | \$1,765 | \$160 | -\$1,606 |
| SANTO DOMINGO DE LOS OLLEROS | \$3,931 | \$10,052 | \$6,121 |
| SURCO | \$5,556 | \$28,985 | \$23,429 |
| AMBAR | \$4,473 | \$12,223 | \$7,750 |
| CHECRAS | \$1,765 | \$1,495 | -\$270 |
| HUAURA | \$1,765 | \$7,474 | \$5,709 |
| SANTA MARIA | \$8,805 | \$46,130 | \$37,325 |
| SAYAN | \$5,014 | \$34,258 | \$29,244 |
| VEGUETA | \$2,848 | \$7,912 | \$5,064 |
| OYON | \$7,722 | \$23,527 | \$15,805 |
| ANDAJES | \$2,848 | \$1,121 | -\$1,727 |
| COCHAMARCA | \$3,931 | \$2,590 | -\$1,341 |
| NAVAN | \$1,765 | \$6,224 | \$4,459 |
| PACHANGARA | \$2,307 | \$2,349 | \$43 |
| ALLAUCA | \$1,765 | \$7 | -\$1,759 |
| AZANGARO | \$3,390 | \$4,485 | \$1,095 |
| CACRA | \$1,765 | \$1,233 | -\$532 |
| CATAHUASI | \$1,765 | \$745,774 | \$744,009 |
| CHOCOS | \$4,473 | \$12,943 | \$8,470 |
| COLONIA | \$1,765 | \$532 | -\$1,233 |
| MADEAN | \$3,390 | \$10,125 | \$6,735 |
| MIRAFLORES | \$1,765 | \$3,592 | \$1,827 |
| PUTINZA | \$1,765 | \$1,255 | -\$510 |
| QUINCHES | \$2,307 | \$1,432 | -\$875 |
| SAN JOAQUIN | \$1,765 | \$43 | -\$1,723 |
| TAURIPAMPA | \$2,307 | \$375 | -\$1,932 |
| TUPE | \$1,765 | \$1,178 | -\$587 |
| VIÑAC | \$3,931 | \$8,574 | \$4,643 |
| IQUITOS | \$10,971 | \$22,776 | \$11,805 |
| ALTO NANAY | \$9,888 | \$13,943 | \$4,055 |
| FERNANDO LORES | \$29,924 | \$161,215 | \$131,291 |
| INDIANA | \$32,090 | \$84,874 | \$52,784 |
| LAS AMAZONAS | \$26,675 | \$37,681 | \$11,006 |
| MAZAN | \$34,257 | \$79,072 | \$44,815 |
| NAPO | \$44,545 | \$125,356 | \$80,810 |
| PUNCHANA | \$23,426 | \$49,317 | \$25,891 |
| PUTUMAYO | \$6,639 | \$7,766 | \$1,127 |
| TORRES CAUSANA | \$14,220 | \$18,948 | \$4,728 |
| BELEN | \$21,802 | \$28,553 | \$6,752 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------------------|-----------|-----------|-----------|
| Municipios | | | |
| SAN JUAN BAUTISTA | \$34,798 | \$110,729 | \$75,931 |
| TENIENTE MANUEL CLAVERO | \$8,263 | \$14,697 | \$6,434 |
| YURIMAGUAS | \$64,040 | \$237,365 | \$173,325 |
| BALSAPUERTO | \$118,193 | \$318,316 | \$200,123 |
| JEBEROS | \$10,430 | \$28,528 | \$18,098 |
| LAGUNAS | \$26,675 | \$67,688 | \$41,013 |
| SANTA CRUZ | \$18,552 | \$47,285 | \$28,732 |
| TENIENTE CESAR LOPEZ ROJAS | \$26,675 | \$67,033 | \$40,358 |
| NAUTA | \$62,416 | \$127,229 | \$64,813 |
| PARINARI | \$49,961 | \$115,386 | \$65,425 |
| TIGRE | \$27,758 | \$77,708 | \$49,950 |
| TROMPETEROS | \$16,386 | \$39,078 | \$22,692 |
| URARINAS | \$53,751 | \$125,964 | \$72,213 |
| RAMON CASTILLA | \$40,213 | \$38,648 | -\$1,565 |
| PEBAS | \$22,885 | \$55,123 | \$32,238 |
| YAVARI | \$23,968 | \$79,110 | \$55,142 |
| SAN PABLO | \$33,174 | \$105,444 | \$72,271 |
| REQUENA | \$16,386 | \$16,702 | \$316 |
| ALTO TAPICHE | \$6,639 | \$26,114 | \$19,475 |
| CAPELO | \$12,596 | \$28,101 | \$15,505 |
| EMILIO SAN MARTIN | \$27,217 | \$42,685 | \$15,468 |
| MAQUIA | \$31,007 | \$87,654 | \$56,647 |
| PUINAHUA | \$14,762 | \$29,627 | \$14,866 |
| SAQUENA | \$18,552 | \$23,515 | \$4,962 |
| SOPLIN | \$7,722 | \$13,042 | \$5,320 |
| TAPICHE | \$5,014 | \$5,440 | \$425 |
| JENARO HERRERA | \$12,596 | \$35,661 | \$23,066 |
| YAQUERANA | \$10,971 | \$20,541 | \$9,570 |
| CONTAMANA | \$50,502 | \$90,206 | \$39,704 |
| INAHUAYA | \$4,473 | \$9,175 | \$4,702 |
| PADRE MARQUEZ | \$6,639 | \$6,774 | \$135 |
| PAMPA HERMOSA | \$33,174 | \$132,791 | \$99,618 |
| SARAYACU | \$39,130 | \$99,604 | \$60,474 |
| VARGAS GUERRA | \$6,639 | \$9,163 | \$2,524 |
| BARRANCA | \$37,506 | \$87,671 | \$50,165 |
| CAHUAPANAS | \$46,170 | \$129,219 | \$83,049 |
| MANSERICHE | \$37,506 | \$122,770 | \$85,264 |
| MORONA | \$46,170 | \$184,826 | \$138,656 |
| PASTAZA | \$28,841 | \$76,797 | \$47,956 |
| ANDOAS | \$44,004 | \$119,475 | \$75,471 |

| País: Perú | Costo | VIPN | Beneficio |
|-------------------------------------|----------|-----------|-----------|
| Municipios | | | |
| TAMBOPATA | \$26,675 | \$392,140 | \$365,465 |
| INAMBARI | \$26,134 | \$119,471 | \$93,338 |
| LAS PIEDRAS | \$8,805 | \$63,710 | \$54,905 |
| LABERINTO | \$14,220 | \$199,166 | \$184,946 |
| MANU | \$10,971 | \$28,025 | \$17,054 |
| FITZCARRALD | \$9,346 | \$10,774 | \$1,428 |
| MADRE DE DIOS | \$18,552 | \$155,096 | \$136,544 |
| HUEPETUHE | \$8,805 | \$15,037 | \$6,233 |
| IÑAPARI | \$8,805 | \$89,674 | \$80,869 |
| IBERIA | \$36,423 | \$398,493 | \$362,070 |
| TAHUAMANU | \$21,802 | \$412,799 | \$390,998 |
| MOQUEGUA | \$27,758 | \$151,175 | \$123,416 |
| CARUMAS | \$5,014 | \$10,912 | \$5,898 |
| CUCHUMBAYA | \$3,390 | \$6,011 | \$2,622 |
| SAN CRISTOBAL | \$7,180 | \$4,548 | -\$2,632 |
| TORATA | \$12,054 | \$37,800 | \$25,746 |
| CHOJATA | \$2,848 | \$2,477 | -\$371 |
| COALAQUE | \$3,390 | \$9,671 | \$6,281 |
| ICHUÑA | \$6,097 | \$14,671 | \$8,574 |
| LLOQUE | \$1,765 | \$1,045 | -\$720 |
| PUQUINA | \$4,473 | \$9,105 | \$4,632 |
| QUINISTAQUILLAS | \$2,307 | \$11,584 | \$9,277 |
| YUNGA | \$6,097 | \$11,851 | \$5,753 |
| EL ALGARROBAL | \$7,180 | \$17,680 | \$10,500 |
| HUACHON | \$2,307 | \$3,970 | \$1,664 |
| HUAYLLAY | \$1,765 | \$1,415 | -\$350 |
| NINACACA | \$6,097 | \$22,627 | \$16,530 |
| PALLANCHACRA | \$3,931 | \$5,739 | \$1,807 |
| PAUCARTAMBO | \$10,971 | \$38,098 | \$27,127 |
| SAN FRANCISCO DE ASIS DE YARUSYACAN | \$1,765 | \$1,458 | -\$308 |
| SIMON BOLIVAR | \$1,765 | \$1,128 | -\$637 |
| TICLACAYAN | \$16,386 | \$79,226 | \$62,839 |
| TINYAHUARCO | \$7,722 | \$30,145 | \$22,424 |
| VICCO | \$7,722 | \$18,694 | \$10,972 |
| YANACANCHA | \$2,848 | \$2,508 | -\$340 |
| YANAHUANCA | \$14,220 | \$38,319 | \$24,099 |
| CHACAYAN | \$3,390 | \$6,664 | \$3,274 |
| PAUCAR | \$2,307 | \$2,659 | \$352 |
| SAN PEDRO DE PILLAO | \$5,556 | \$12,281 | \$6,725 |
| SANTA ANA DE TUSI | \$7,180 | \$18,238 | \$11,058 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------------------|----------|-----------|-----------|
| Municipios | | | |
| VILCABAMBA | \$2,307 | \$1,369 | -\$938 |
| OXAPAMPA | \$2,307 | \$1,177 | -\$1,130 |
| HUANCABAMBA | \$2,307 | \$7,022 | \$4,715 |
| PALCAZU | \$37,506 | \$172,618 | \$135,112 |
| POZUZO | \$16,386 | \$54,579 | \$38,193 |
| PUERTO BERMUDEZ | \$52,668 | \$112,097 | \$59,429 |
| VILLA RICA | \$9,346 | \$49,265 | \$39,918 |
| CONSTITUCION | \$22,885 | \$79,195 | \$56,310 |
| PIURA | \$10,971 | \$100,688 | \$89,717 |
| CURA MORI | \$1,765 | \$1,128 | -\$637 |
| LA UNION | \$3,390 | \$28,181 | \$24,791 |
| LAS LOMAS | \$4,473 | \$7,465 | \$2,993 |
| TAMBO GRANDE | \$10,430 | \$39,357 | \$28,927 |
| AYABACA | \$24,509 | \$40,432 | \$15,923 |
| FRIAS | \$16,386 | \$33,179 | \$16,793 |
| JILILI | \$7,180 | \$19,012 | \$11,832 |
| LAGUNAS | \$7,722 | \$21,377 | \$13,655 |
| PACAIPAMPA | \$39,672 | \$108,773 | \$69,101 |
| PAIMAS | \$3,390 | \$5,453 | \$2,063 |
| SAPILLICA | \$10,971 | \$22,009 | \$11,038 |
| SUYO | \$5,014 | \$28,311 | \$23,296 |
| HUANCABAMBA | \$26,134 | \$50,596 | \$24,462 |
| CANCHAQUE | \$2,307 | \$4,357 | \$2,050 |
| EL CARMEN DE LA FRONTERA | \$17,469 | \$46,088 | \$28,618 |
| HUARMACA | \$46,170 | \$108,643 | \$62,473 |
| LALAZQUIZ | \$2,307 | \$2,085 | -\$222 |
| SAN MIGUEL DE EL FAIQUE | \$7,180 | \$16,201 | \$9,020 |
| SONDOR | \$12,596 | \$30,031 | \$17,435 |
| SONDORILLO | \$11,513 | \$24,920 | \$13,408 |
| CHULUCANAS | \$6,639 | \$6,232 | -\$406 |
| CHALACO | \$6,097 | \$7,846 | \$1,749 |
| SALITRAL | \$2,307 | \$936 | -\$1,370 |
| SANTO DOMINGO | \$20,177 | \$44,195 | \$24,018 |
| YAMANGO | \$9,888 | \$20,159 | \$10,271 |
| VICHAYAL | \$1,765 | \$1,005 | -\$760 |
| SULLANA | \$19,094 | \$248,958 | \$229,864 |
| LANCONES | \$16,386 | \$63,875 | \$47,488 |
| MARCAVELICA | \$2,307 | \$7,508 | \$5,201 |
| MIGUEL CHECA | \$2,307 | \$1,878 | -\$429 |
| PARIÑAS | \$6,097 | \$21,840 | \$15,742 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------------------|----------|----------|-----------|
| Municipios | | | |
| LA BREA | \$2,848 | \$10,478 | \$7,629 |
| SECHURA | \$9,346 | \$42,495 | \$33,148 |
| BELLAVISTA DE LA UNION | \$1,765 | \$1,074 | -\$692 |
| BERNAL | \$10,430 | \$31,876 | \$21,446 |
| CRISTO NOS VALGA | \$33,174 | \$78,531 | \$45,358 |
| VICE | \$2,307 | \$1,781 | -\$525 |
| PUNO | \$9,888 | \$23,105 | \$13,217 |
| ACORA | \$20,718 | \$69,401 | \$48,683 |
| AMANTANI | \$14,220 | \$25,268 | \$11,048 |
| ATUNCOLLA | \$3,931 | \$8,058 | \$4,127 |
| CAPACHICA | \$7,180 | \$15,658 | \$8,477 |
| CHUCUITO | \$3,931 | \$5,622 | \$1,690 |
| COATA | \$14,220 | \$38,597 | \$24,377 |
| HUATA | \$1,765 | \$986 | -\$779 |
| MAÑAZO | \$6,639 | \$14,809 | \$8,170 |
| PAUCARCOLLA | \$7,180 | \$12,250 | \$5,070 |
| PICHACANI | \$18,011 | \$46,815 | \$28,804 |
| PLATERIA | \$1,765 | \$1,267 | -\$498 |
| SAN ANTONIO | \$7,180 | \$16,249 | \$9,069 |
| TIQUILLACA | \$6,097 | \$20,378 | \$14,281 |
| AZANGARO | \$7,180 | \$14,349 | \$7,168 |
| ACHAYA | \$4,473 | \$8,410 | \$3,937 |
| ARAPA | \$9,888 | \$21,927 | \$12,039 |
| ASILLO | \$10,430 | \$21,511 | \$11,081 |
| CAMINACA | \$3,390 | \$5,375 | \$1,985 |
| CHUPA | \$5,014 | \$6,989 | \$1,975 |
| JOSE DOMINGO CHOQUEHUANCA | \$3,390 | \$3,054 | -\$336 |
| MUÑANI | \$4,473 | \$9,292 | \$4,819 |
| POTONI | \$14,762 | \$37,035 | \$22,273 |
| SAMAN | \$2,848 | \$4,416 | \$1,567 |
| SAN ANTON | \$7,722 | \$13,927 | \$6,205 |
| SAN JOSE | \$7,722 | \$13,003 | \$5,282 |
| SAN JUAN DE SALINAS | \$1,765 | \$1,079 | -\$687 |
| SANTIAGO DE PUPUJA | \$7,722 | \$16,313 | \$8,591 |
| TIRAPATA | \$7,180 | \$15,633 | \$8,453 |
| MACUSANI | \$3,931 | \$11,092 | \$7,161 |
| AJOYANI | \$6,639 | \$17,513 | \$10,874 |
| AYAPATA | \$5,556 | \$8,942 | \$3,386 |
| COASA | \$12,596 | \$17,014 | \$4,418 |
| CORANI | \$5,556 | \$18,718 | \$13,162 |

| País: Perú | Costo | VIPN | Beneficio |
|--------------|----------|-----------|-----------|
| Municipios | | | |
| CRUCERO | \$12,596 | \$56,763 | \$44,168 |
| ITUATA | \$8,263 | \$16,177 | \$7,914 |
| OLLACHEA | \$13,137 | \$40,346 | \$27,209 |
| SAN GABAN | \$8,805 | \$8,503 | -\$302 |
| USICAYOS | \$34,257 | \$79,271 | \$45,014 |
| JULI | \$13,137 | \$30,783 | \$17,645 |
| DESAGUADERO | \$10,971 | \$52,081 | \$41,110 |
| HUACULLANI | \$13,679 | \$44,868 | \$31,190 |
| KELLUYO | \$14,762 | \$41,550 | \$26,788 |
| PISACOMA | \$10,430 | \$27,827 | \$17,398 |
| POMATA | \$9,888 | \$23,154 | \$13,266 |
| ZEPITA | \$9,888 | \$21,036 | \$11,148 |
| ILAVE | \$40,755 | \$104,640 | \$63,885 |
| CAPAZO | \$14,220 | \$29,460 | \$15,240 |
| PILCUYO | \$12,054 | \$24,158 | \$12,103 |
| SANTA ROSA | \$23,968 | \$88,032 | \$64,064 |
| CONDURIRI | \$17,469 | \$56,572 | \$39,103 |
| HUANCANE | \$4,473 | \$7,505 | \$3,032 |
| COJATA | \$14,762 | \$60,065 | \$45,303 |
| HUATASANI | \$6,639 | \$12,378 | \$5,739 |
| INCHUPALLA | \$2,307 | \$4,232 | \$1,925 |
| PUSI | \$5,556 | \$8,295 | \$2,740 |
| ROSASPATA | \$5,014 | \$4,999 | -\$16 |
| TARACO | \$13,679 | \$42,801 | \$29,122 |
| VILQUE CHICO | \$8,263 | \$20,903 | \$12,640 |
| LAMPA | \$16,386 | \$45,180 | \$28,793 |
| CABANILLA | \$14,220 | \$141,817 | \$127,597 |
| CALAPUJA | \$5,556 | \$13,329 | \$7,773 |
| NICASIO | \$7,180 | \$20,616 | \$13,435 |
| OCUVIRI | \$3,931 | \$26,447 | \$22,516 |
| PALCA | \$13,137 | \$39,299 | \$26,162 |
| PARATIA | \$31,007 | \$112,323 | \$81,315 |
| PUCARA | \$15,845 | \$35,247 | \$19,402 |
| SANTA LUCIA | \$17,469 | \$105,764 | \$88,295 |
| VILAVILA | \$13,679 | \$49,648 | \$35,970 |
| AYAVIRI | \$6,097 | \$159,090 | \$152,993 |
| ANTAUTA | \$10,971 | \$22,360 | \$11,389 |
| CUPI | \$8,805 | \$46,029 | \$37,224 |
| LLALLI | \$12,596 | \$80,290 | \$67,695 |
| MACARI | \$16,928 | \$64,923 | \$47,995 |

| País: Perú | Costo | VIPN | Beneficio |
|---------------------------|----------|-----------|-----------|
| Municipios | | | |
| NUÑO A | \$23,426 | \$110,446 | \$87,020 |
| ORURILLO | \$16,386 | \$41,616 | \$25,230 |
| SANTA ROSA | \$21,260 | \$65,234 | \$43,974 |
| UMACHIRI | \$3,390 | \$6,410 | \$3,020 |
| MOHO | \$24,509 | \$62,737 | \$38,228 |
| CONIMA | \$5,014 | \$3,059 | -\$1,955 |
| HUAYRAPATA | \$12,596 | \$24,606 | \$12,010 |
| TILALI | \$5,556 | \$4,538 | -\$1,017 |
| PUTINA | \$40,213 | \$145,437 | \$105,223 |
| ANANEA | \$3,390 | \$4,444 | \$1,054 |
| PEDRO VILCA APAZA | \$11,513 | \$24,022 | \$12,509 |
| QUILCAPUNCU | \$15,303 | \$40,126 | \$24,823 |
| SINA | \$4,473 | \$5,529 | \$1,056 |
| JULIACA | \$36,423 | \$88,883 | \$52,460 |
| CABANA | \$9,346 | \$27,892 | \$18,545 |
| CABANILLAS | \$14,762 | \$97,975 | \$83,213 |
| CARACOTO | \$5,556 | \$20,637 | \$15,081 |
| SANDIA | \$2,848 | \$1,590 | -\$1,258 |
| CUYOCUYO | \$5,556 | \$8,202 | \$2,646 |
| LIMBANI | \$10,971 | \$38,661 | \$27,690 |
| PATAMBUCO | \$3,931 | \$4,014 | \$83 |
| PHARA | \$3,390 | \$1,548 | -\$1,842 |
| SAN JUAN DEL ORO | \$18,011 | \$20,846 | \$2,835 |
| YANAHUAYA | \$7,722 | \$6,299 | -\$1,423 |
| ALTO INAMBARI | \$9,888 | \$6,173 | -\$3,715 |
| SAN PEDRO DE PUTINA PUNCO | \$67,831 | \$140,368 | \$72,537 |
| YUNGUYO | \$10,430 | \$8,441 | -\$1,989 |
| COPANI | \$8,805 | \$11,426 | \$2,621 |
| OLLARAYA | \$2,848 | \$1,979 | -\$869 |
| UNICACHI | \$1,765 | \$894 | -\$871 |
| MOYOBAMBA | \$41,296 | \$451,534 | \$410,238 |
| HABANA | \$1,765 | \$157 | -\$1,608 |
| JEPELACIO | \$32,632 | \$294,078 | \$261,446 |
| SORITOR | \$40,213 | \$268,952 | \$228,739 |
| BELLAVISTA | \$7,180 | \$99,056 | \$91,876 |
| ALTO BIAVO | \$44,004 | \$127,707 | \$83,703 |
| BAJO BIAVO | \$38,589 | \$288,286 | \$249,697 |
| HUALLAGA | \$10,971 | \$116,740 | \$105,769 |
| SAN PABLO | \$12,596 | \$72,201 | \$59,606 |
| SAN RAFAEL | \$1,765 | \$0 | -\$1,765 |

| País: Perú | Costo | VIPN | Beneficio |
|----------------------|----------|-----------|-----------|
| Municipios | | | |
| SAN JOSE DE SISA | \$18,552 | \$60,761 | \$42,209 |
| AGUA BLANCA | \$15,303 | \$54,429 | \$39,126 |
| SAN MARTIN | \$29,924 | \$198,422 | \$168,497 |
| SANTA ROSA | \$14,762 | \$52,510 | \$37,748 |
| SHATOJA | \$8,263 | \$8,185 | -\$79 |
| SAPOSOA | \$61,874 | \$193,195 | \$131,321 |
| ALTO SAPOSOA | \$14,762 | \$90,769 | \$76,007 |
| EL ESLABON | \$12,596 | \$29,994 | \$17,399 |
| PISCOYACU | \$22,885 | \$88,386 | \$65,502 |
| SACANCHE | \$9,888 | \$27,798 | \$17,910 |
| LAMAS | \$8,263 | \$26,614 | \$18,350 |
| ALONSO DE ALVARADO | \$41,296 | \$157,405 | \$116,109 |
| BARRANQUITA | \$26,675 | \$83,612 | \$56,937 |
| CAYNARACHI | \$26,134 | \$112,697 | \$86,563 |
| CUÑUMBUQUI | \$2,848 | \$4,809 | \$1,960 |
| PINTO RECODO | \$35,881 | \$74,403 | \$38,522 |
| SAN ROQUE DE CUMBAZA | \$4,473 | \$8,063 | \$3,591 |
| SHANAO | \$6,639 | \$9,667 | \$3,028 |
| TABALOSOS | \$23,426 | \$81,367 | \$57,941 |
| ZAPATERO | \$8,805 | \$44,152 | \$35,347 |
| JUANJUI | \$7,180 | \$14,132 | \$6,952 |
| CAMPANILLA | \$23,426 | \$53,445 | \$30,019 |
| HUICUNGO | \$22,885 | \$121,623 | \$98,739 |
| PACHIZA | \$26,675 | \$172,136 | \$145,460 |
| PAJARILLO | \$16,386 | \$47,729 | \$31,343 |
| PICOTA | \$1,765 | \$0 | -\$1,765 |
| BUENOS AIRES | \$17,469 | \$70,392 | \$52,923 |
| SAN HILARION | \$3,931 | \$85,245 | \$81,313 |
| SHAMBOYACU | \$42,379 | \$151,100 | \$108,721 |
| TINGO DE PONASA | \$12,054 | \$53,663 | \$41,609 |
| TRES UNIDOS | \$21,802 | \$88,060 | \$66,259 |
| RIOJA | \$5,014 | \$10,918 | \$5,904 |
| AWAJUN | \$14,220 | \$55,715 | \$41,495 |
| ELIAS SOPLIN VARGAS | \$3,931 | \$2,558 | -\$1,373 |
| NUEVA CAJAMARCA | \$6,639 | \$14,894 | \$8,256 |
| PARDO MIGUEL | \$22,885 | \$100,748 | \$77,863 |
| POSIC | \$1,765 | \$878 | -\$887 |
| SAN FERNANDO | \$5,014 | \$53,641 | \$48,627 |
| YORONGOS | \$5,014 | \$8,843 | \$3,829 |
| YURACYACU | \$6,097 | \$109,148 | \$103,051 |

| País: Perú | Costo | VIPN | Beneficio |
|---|----------|-----------|-----------|
| Municipios | | | |
| TARAPOTO | \$1,765 | \$0 | -\$1,765 |
| CACATACHI | \$2,848 | \$3,090 | \$242 |
| CHAZUTA | \$43,462 | \$181,835 | \$138,373 |
| CHIPURANA | \$22,885 | \$46,099 | \$23,214 |
| EL PORVENIR | \$13,137 | \$188,253 | \$175,116 |
| HUIMBAYOC | \$30,466 | \$143,372 | \$112,907 |
| LA BANDA DE SHILCAYO | \$10,430 | \$51,892 | \$41,462 |
| MORALES | \$6,639 | \$33,624 | \$26,985 |
| PAPAPLAYA | \$8,263 | \$18,565 | \$10,302 |
| SAUCE | \$23,426 | \$138,024 | \$114,598 |
| TOCACHE | \$21,260 | \$249,261 | \$228,001 |
| NUEVO PROGRESO | \$18,552 | \$63,046 | \$44,494 |
| POLVORA | \$29,383 | \$268,365 | \$238,982 |
| SHUNTE | \$1,765 | \$2,288 | \$522 |
| UCHIZA | \$16,386 | \$51,808 | \$35,421 |
| TACNA | \$32,090 | \$343,687 | \$311,597 |
| CALANA | \$1,765 | \$9,134 | \$7,369 |
| CIUDAD NUEVA | \$2,307 | \$4,290 | \$1,983 |
| INCLAN | \$7,722 | \$36,394 | \$28,672 |
| PACHIA | \$3,931 | \$6,217 | \$2,286 |
| PALCA | \$3,390 | \$6,453 | \$3,063 |
| SAMA | \$2,307 | \$3,002 | \$695 |
| CORONEL GREGORIO ALBARRACIN LAN- CHIPA | \$7,722 | \$28,448 | \$20,727 |
| CANDARAVE | \$10,430 | \$33,227 | \$22,798 |
| CAIRANI | \$2,848 | \$1,007 | -\$1,841 |
| CAMILACA | \$2,848 | \$334 | -\$2,514 |
| QUILAHUANI | \$2,307 | \$1,604 | -\$703 |
| LOCUMBA | \$6,097 | \$21,184 | \$15,087 |
| ILABAYA | \$2,307 | \$2,452 | \$145 |
| ITE | \$3,390 | \$17,397 | \$14,007 |
| TARATA | \$3,390 | \$8,271 | \$4,881 |
| HEROES ALBARRACIN | \$5,556 | \$4,024 | -\$1,531 |
| ESTIQUE | \$3,931 | \$12,040 | \$8,109 |
| SITAJARA | \$3,390 | \$1,361 | -\$2,029 |
| SUSAPAYA | \$2,848 | \$5,463 | \$2,615 |
| TARUCACHI | \$5,014 | \$2,652 | -\$2,362 |
| TICACO | \$3,931 | \$5,341 | \$1,410 |
| TUMBES | \$1,765 | \$1,875 | \$110 |
| PAMPAS DE HOSPITAL | \$2,848 | \$5,445 | \$2,597 |

| País: Perú | Costo | VIPN | Beneficio |
|-----------------------|-----------|-----------|-----------|
| Municipios | | | |
| SAN JACINTO | \$2,307 | \$5,820 | \$3,513 |
| SAN JUAN DE LA VIRGEN | \$1,765 | \$1,092 | -\$674 |
| CASITAS | \$3,931 | \$6,618 | \$2,687 |
| CANOAS DE PUNTA SAL | \$3,390 | \$18,026 | \$14,636 |
| ZARUMILLA | \$1,765 | \$0 | -\$1,765 |
| AGUAS VERDES | \$2,848 | \$4,419 | \$1,570 |
| MATAPALO | \$6,639 | \$44,466 | \$37,828 |
| PAPAYAL | \$3,931 | \$7,288 | \$3,357 |
| CALLERIA | \$23,968 | \$57,367 | \$33,399 |
| CAMPOVERDE | \$13,679 | \$28,414 | \$14,735 |
| IPARIA | \$42,379 | \$94,439 | \$52,060 |
| MASISEA | \$28,300 | \$45,036 | \$16,736 |
| YARINACOCHA | \$15,303 | \$39,407 | \$24,104 |
| NUEVA REQUENA | \$10,971 | \$40,026 | \$29,055 |
| MANANTAY | \$9,346 | \$18,197 | \$8,850 |
| RAYMONDI | \$98,698 | \$245,027 | \$146,329 |
| SEPAHUA | \$28,841 | \$83,582 | \$54,741 |
| TAHUANIA | \$41,296 | \$85,773 | \$44,477 |
| YURUA | \$11,513 | \$8,249 | -\$3,263 |
| PADRE ABAD | \$46,170 | \$164,519 | \$118,349 |
| IRAZOLA | \$42,921 | \$267,027 | \$224,106 |
| CURIMANA | \$6,639 | \$19,409 | \$12,770 |
| PURUS | \$129,023 | \$364,007 | \$234,983 |

ANEXO 3

CARRETERAS

| País: Bolivia | Costo total | VIPN | Beneficio |
|-----------------------|--------------|--------------|--------------|
| Municipios | | | |
| Acasio | \$1,969,893 | \$4,173,671 | \$2,203,778 |
| Achacachi | \$910,426 | \$35,889,347 | \$34,978,922 |
| Achocalla | \$286,343 | \$7,185,014 | \$6,898,671 |
| Aiquile | \$1,737,522 | \$25,724,548 | \$23,987,026 |
| Alalay | \$1,217,580 | \$7,915,415 | \$6,697,835 |
| Alto Beni | \$2,666,194 | \$19,080,103 | \$16,413,909 |
| Ancoraimes | \$1,143,120 | \$5,655,436 | \$4,512,317 |
| Antequera | \$1,633,959 | \$1,001,952 | -\$632,007 |
| Anzaldo | \$1,179,789 | \$3,492,310 | \$2,312,521 |
| Apolo | \$15,059,873 | \$10,709,710 | -\$4,350,163 |
| Arapampa | \$1,769,396 | \$2,252,132 | \$482,735 |
| Arani | \$565,946 | \$3,767,567 | \$3,201,621 |
| Arbieto | \$219,879 | \$2,161,334 | \$1,941,455 |
| Arque | \$982,856 | \$5,144,098 | \$4,161,242 |
| Ascensión de Guarayos | \$5,992,283 | \$38,042,131 | \$32,049,848 |
| Atocha | \$2,935,408 | \$715,174 | -\$2,220,234 |
| Aucapata | \$3,499,949 | \$1,750,365 | -\$1,749,583 |
| Ayata | \$5,663,999 | \$4,578,356 | -\$1,085,643 |
| Ayo Ayo | \$745,400 | \$13,390,195 | \$12,644,795 |
| Azurduy | \$4,272,085 | \$9,721,462 | \$5,449,378 |
| Batallas | \$1,459,180 | \$14,290,564 | \$12,831,383 |
| Baures | \$14,512,295 | \$6,822,057 | -\$7,690,238 |
| Belén de Andamarca | \$2,973,906 | \$730,852 | -\$2,243,054 |
| Bella Flor | \$2,739,099 | \$6,289,839 | \$3,550,740 |
| Bermejo | \$1,708,111 | \$2,688,494 | \$980,383 |
| Betanzos | \$1,031,425 | \$21,676,019 | \$20,644,594 |
| Bolívar | \$1,217,853 | \$5,251,448 | \$4,033,595 |
| Bolpebra | \$2,110,906 | \$3,210,100 | \$1,099,194 |
| Boyube | \$2,702,830 | \$1,433,198 | -\$1,269,633 |
| Buena Vista | \$7,244,887 | \$16,685,074 | \$9,440,187 |
| Cabezas | \$1,779,606 | \$87,425,229 | \$85,645,623 |
| Cairoma | \$2,739,696 | \$10,230,766 | \$7,491,069 |
| Caiza "D" | \$1,477,907 | \$3,066,148 | \$1,588,240 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|----------------------|--------------|--------------|--------------|
| Municipios | | | |
| Cajuata | \$3,583,025 | \$10,070,122 | \$6,487,097 |
| Calacoto | \$2,731,047 | \$7,936,113 | \$5,205,065 |
| Calamarca | \$448,813 | \$11,976,150 | \$11,527,337 |
| Callapa | \$1,539,004 | \$3,269,669 | \$1,730,665 |
| Camargo | \$2,133,569 | \$9,673,183 | \$7,539,614 |
| Camiri | \$2,958,037 | \$4,052,589 | \$1,094,552 |
| Capinota | \$1,118,637 | \$11,724,662 | \$10,606,025 |
| Caquiaviri | \$1,117,846 | \$7,320,032 | \$6,202,186 |
| Caracollo | \$764,961 | \$14,887,491 | \$14,122,530 |
| Caranavi | \$1,806,127 | \$72,251,404 | \$70,445,277 |
| Carangas | \$3,303,885 | \$272,968 | -\$3,030,917 |
| Caraparí | \$2,294,946 | \$27,839,240 | \$25,544,294 |
| Caripuyo | \$1,586,851 | \$6,104,826 | \$4,517,975 |
| Carmen Rivero Tórrez | \$4,317,577 | \$6,050,190 | \$1,732,613 |
| Catacora | \$1,944,210 | \$15,364 | -\$1,928,845 |
| Chacarilla | \$1,877,123 | \$1,672,200 | -\$204,923 |
| Challapata | \$1,815,041 | \$20,256,430 | \$18,441,389 |
| Chaquí | \$759,686 | \$2,622,895 | \$1,863,210 |
| Charagua | \$7,467,857 | \$42,488,195 | \$35,020,338 |
| Charaña | \$3,245,100 | \$568,135 | -\$2,676,965 |
| Charazani | \$8,701,896 | \$4,455,352 | -\$4,246,544 |
| Chayanta | \$1,504,394 | \$9,099,724 | \$7,595,330 |
| Chimoré | \$5,905,712 | \$38,755,313 | \$32,849,601 |
| Chipaya | \$3,212,515 | \$160,824 | -\$3,051,691 |
| Choque Cota | \$1,626,465 | \$598,493 | -\$1,027,972 |
| Chua Cocani | \$846,847 | \$1,084,617 | \$237,770 |
| Chulumani | \$1,454,062 | \$19,065,680 | \$17,611,618 |
| Chuma | \$2,421,484 | \$5,922,280 | \$3,500,796 |
| Chuquihuta | \$1,443,034 | \$858,153 | -\$584,881 |
| Ckochas | \$2,329,255 | \$10,907,783 | \$8,578,529 |
| Cliza | \$289,803 | \$3,124,983 | \$2,835,180 |
| Cobija | \$423,994 | \$3,922,830 | \$3,498,836 |
| Cocapata | \$19,257,352 | \$30,628,384 | \$11,371,031 |
| Cochabamba | \$86,912 | \$3,465,482 | \$3,378,569 |
| Coipasa | \$3,423,958 | \$2,814,027 | -\$609,931 |
| Colcapirhua | \$13,018 | \$1,361,210 | \$1,348,192 |
| Colcha "K" | \$3,864,936 | \$8,667,056 | \$4,802,120 |
| Collana | \$908,888 | \$3,289,782 | \$2,380,894 |
| Colomi | \$636,569 | \$26,478,893 | \$25,842,324 |
| Colpa Bélgica | \$581,167 | \$2,642,145 | \$2,060,978 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|-----------------------|-------------|---------------|---------------|
| Municipios | | | |
| Colquechaca | \$1,576,213 | \$21,500,882 | \$19,924,670 |
| Colquencha | \$1,173,508 | \$6,562,859 | \$5,389,351 |
| Colquiri | \$1,338,420 | \$6,802,914 | \$5,464,493 |
| Comanche | \$1,012,738 | \$3,320,319 | \$2,307,581 |
| Comarapa | \$4,912,064 | \$26,622,952 | \$21,710,888 |
| Combaya | \$1,931,863 | \$730,315 | -\$1,201,549 |
| Concepción | \$8,091,677 | \$18,269,294 | \$10,177,616 |
| Copacabana | \$1,122,207 | \$1,927,370 | \$805,162 |
| Coripata | \$4,078,852 | \$16,534,800 | \$12,455,948 |
| Corocoro | \$1,437,516 | \$6,677,569 | \$5,240,053 |
| Coroico | \$3,259,139 | \$14,432,644 | \$11,173,505 |
| Corque | \$1,417,566 | \$1,790,544 | \$372,978 |
| Cotagaita | \$3,098,934 | \$16,663,796 | \$13,564,862 |
| Cotoca | \$377,729 | \$11,940,363 | \$11,562,634 |
| Cruz de Machacamarca | \$2,228,241 | \$137,574 | -\$2,090,667 |
| Cuatro Cañadas | \$1,685,105 | \$80,159,420 | \$78,474,315 |
| Cuchumuela | \$1,032,363 | \$685,942 | -\$346,421 |
| Cuevo | \$2,619,178 | \$3,515,572 | \$896,395 |
| Culpina | \$4,497,899 | \$28,917,969 | \$24,420,071 |
| Curahuara de Carangas | \$2,297,833 | \$1,385,088 | -\$912,745 |
| Curva | \$6,825,539 | \$962,990 | -\$5,862,549 |
| Desaguadero | \$890,322 | \$1,287,680 | \$397,359 |
| El Alto | \$148,597 | \$4,042,674 | \$3,894,077 |
| El Choro | \$1,769,834 | \$6,722,362 | \$4,952,527 |
| El Puente | \$3,399,985 | \$83,091,668 | \$79,691,683 |
| El Torno | \$1,359,906 | \$25,528,468 | \$24,168,563 |
| El Villar | \$3,064,427 | \$9,847,285 | \$6,782,858 |
| Entre Ríos | \$4,500,542 | \$126,615,396 | \$122,114,854 |
| Escara | \$2,316,768 | \$26,247 | -\$2,290,521 |
| Escoma | \$1,301,249 | \$2,685,536 | \$1,384,287 |
| Esmeralda | \$2,866,572 | \$59,299 | -\$2,807,274 |
| Eucaliptus | \$1,022,426 | \$4,007,603 | \$2,985,176 |
| Exaltación | \$6,451,484 | \$6,920,699 | \$469,214 |
| Fernández Alonso | \$1,481,541 | \$29,708,589 | \$28,227,048 |
| Filadelfia | \$5,621,511 | \$4,167,633 | -\$1,453,878 |
| Gral. Saavedra | \$597,236 | \$6,061,039 | \$5,463,803 |
| Guanay | \$6,833,473 | \$7,226,255 | \$392,782 |
| Guaqui | \$820,924 | \$4,970,016 | \$4,149,091 |
| Guayaramerín | \$5,515,880 | \$18,348,177 | \$12,832,296 |
| Gutiérrez | \$2,522,556 | \$13,957,779 | \$11,435,223 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|------------------|--------------|--------------|--------------|
| Municipios | | | |
| Huacaraje | \$8,456,416 | \$4,904,262 | -\$3,552,154 |
| Huacareta | \$3,498,754 | \$19,456,614 | \$15,957,859 |
| Huacaya | \$3,348,860 | \$4,283,031 | \$934,171 |
| Huachacalla | \$1,345,652 | \$17,888 | -\$1,327,765 |
| Huanuni | \$883,990 | \$2,489,093 | \$1,605,103 |
| Huari | \$1,848,245 | \$13,959,574 | \$12,111,330 |
| Huarina | \$547,277 | \$4,847,297 | \$4,300,020 |
| Huatajata | \$566,057 | \$464,446 | -\$101,611 |
| Huayllamarca | \$1,235,819 | \$5,309,912 | \$4,074,092 |
| Humanata | \$2,018,196 | \$2,697,485 | \$679,289 |
| Ichoca | \$2,385,259 | \$4,461,233 | \$2,075,974 |
| Icla | \$2,057,525 | \$5,874,487 | \$3,816,962 |
| Incahuasi | \$4,729,688 | \$9,297,273 | \$4,567,585 |
| Independencia | \$1,664,769 | \$19,130,348 | \$17,465,579 |
| Ingavi | \$7,161,072 | \$252,387 | -\$6,908,685 |
| Inquisivi | \$5,884,405 | \$20,046,203 | \$14,161,798 |
| Irupana | \$2,795,224 | \$10,531,422 | \$7,736,198 |
| Ixiamas | \$13,435,802 | \$5,512,515 | -\$7,923,287 |
| Jesús de Machaca | \$1,169,741 | \$6,986,847 | \$5,817,106 |
| La Asunta | \$6,009,643 | \$32,730,228 | \$26,720,585 |
| La Guardia | \$464,509 | \$8,608,164 | \$8,143,655 |
| La Paz | \$2,787,061 | \$4,048,803 | \$1,261,741 |
| La Rivera | \$4,219,805 | \$1,350,283 | -\$2,869,522 |
| Lagunillas | \$2,584,378 | \$13,985,708 | \$11,401,330 |
| Laja | \$388,906 | \$18,921,979 | \$18,533,073 |
| Las Carreras | \$1,871,778 | \$8,168,321 | \$6,296,544 |
| Llallagua | \$993,052 | \$4,413,230 | \$3,420,178 |
| Llica | \$4,802,382 | \$7,559,512 | \$2,757,131 |
| Loreto | \$7,400,039 | \$4,290,160 | -\$3,109,879 |
| Luribay | \$1,932,740 | \$10,142,306 | \$8,209,567 |
| Machacamarca | \$603,289 | \$2,014,294 | \$1,411,005 |
| Macharetí | \$4,233,077 | \$23,129,398 | \$18,896,321 |
| Magdalena | \$10,676,823 | \$11,299,004 | \$622,181 |
| Mairana | \$3,527,180 | \$16,816,428 | \$13,289,248 |
| Malla | \$2,291,681 | \$1,602,042 | -\$689,639 |
| Mapiri | \$7,643,792 | \$2,047,877 | -\$5,595,915 |
| Mecapaca | \$707,503 | \$6,605,237 | \$5,897,733 |
| Mineros | \$891,142 | \$6,495,844 | \$5,604,701 |
| Mizque | \$1,439,249 | \$49,487,018 | \$48,047,769 |
| Mocomoco | \$1,853,765 | \$4,781,731 | \$2,927,966 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|---------------------|-------------|---------------|---------------|
| Municipios | | | |
| Mojinete | \$5,748,301 | \$143,032 | -\$5,605,269 |
| Mojocoya | \$2,584,222 | \$12,250,973 | \$9,666,752 |
| Monteagudo | \$3,376,773 | \$42,087,196 | \$38,710,423 |
| Montero | \$102,469 | \$2,543,187 | \$2,440,718 |
| Moro Moro | \$2,446,946 | \$16,270,750 | \$13,823,803 |
| Morochata | \$1,099,857 | \$16,650,253 | \$15,550,396 |
| Muyupampa | \$3,677,325 | \$27,745,549 | \$24,068,224 |
| Nazacara de Pacajes | \$722,101 | \$130,456 | -\$591,644 |
| Nueva Esperanza | \$5,403,963 | \$299,980 | -\$5,103,983 |
| Ocurí | \$1,357,266 | \$7,657,862 | \$6,300,596 |
| Okinawa Uno | \$940,308 | \$15,754,889 | \$14,814,581 |
| Omereque | \$1,798,799 | \$22,353,064 | \$20,554,265 |
| Oruro | \$95,741 | \$552,714 | \$456,973 |
| Padcaya | \$4,268,169 | \$36,967,288 | \$32,699,119 |
| Padilla | \$2,393,428 | \$20,172,225 | \$17,778,797 |
| Pailón | \$2,774,086 | \$144,702,860 | \$141,928,774 |
| Palca | \$1,128,660 | \$8,285,990 | \$7,157,330 |
| Palos Blancos | \$7,653,013 | \$30,410,129 | \$22,757,116 |
| Pampa Aullagas | \$2,465,745 | \$7,712,647 | \$5,246,902 |
| Pampa Grande | \$1,939,642 | \$25,236,102 | \$23,296,460 |
| Papel Pampa | \$1,333,246 | \$7,580,234 | \$6,246,988 |
| Pasorapa | \$2,844,884 | \$24,438,690 | \$21,593,806 |
| Patacamaya | \$874,585 | \$17,275,407 | \$16,400,823 |
| Pazña | \$2,001,770 | \$4,920,503 | \$2,918,733 |
| Pelechuco | \$6,577,091 | \$1,711,277 | -\$4,865,814 |
| Pocoata | \$1,752,716 | \$12,142,622 | \$10,389,906 |
| Pocona | \$1,396,775 | \$21,647,888 | \$20,251,113 |
| Pojo | \$7,094,162 | \$23,659,725 | \$16,565,563 |
| Poopó | \$941,782 | \$3,263,557 | \$2,321,776 |
| Porco | \$1,212,112 | \$709,716 | -\$502,396 |
| Poroma | \$1,822,341 | \$11,088,517 | \$9,266,176 |
| Porongo | \$518,461 | \$7,513,182 | \$6,994,721 |
| Portachuelo | \$543,026 | \$7,593,722 | \$7,050,695 |
| Porvenir | \$1,087,930 | \$4,673,051 | \$3,585,121 |
| Postrer Valle | \$3,881,450 | \$6,515,291 | \$2,633,841 |
| Potosí | \$512,546 | \$4,027,610 | \$3,515,065 |
| Presto | \$2,609,658 | \$7,477,199 | \$4,867,541 |
| Puerto Carabuco | \$1,365,656 | \$4,651,046 | \$3,285,390 |
| Pucará | \$2,817,187 | \$6,333,323 | \$3,516,136 |
| Pucarani | \$810,914 | \$22,739,400 | \$21,928,486 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|--------------------------|-------------|---------------|---------------|
| Municipios | | | |
| Puerto Acosta | \$1,581,315 | \$3,057,593 | \$1,476,278 |
| Puerto Gonzalo Moreno | \$1,500,489 | \$3,374,324 | \$1,873,836 |
| Puerto Pérez | \$759,133 | \$2,523,510 | \$1,764,377 |
| Puerto Quijarro | \$8,499,395 | \$551,959 | -\$7,947,436 |
| Puerto Rico | \$6,611,746 | \$2,545,357 | -\$4,066,389 |
| Puerto Siles | \$9,570,368 | \$1,642,309 | -\$7,928,059 |
| Puerto Suárez | \$5,155,831 | \$3,979,603 | -\$1,176,228 |
| Puerto Villarroel | \$1,900,174 | \$143,538,844 | \$141,638,670 |
| Puna | \$945,648 | \$13,006,301 | \$12,060,652 |
| Punata | \$410,445 | \$7,065,023 | \$6,654,578 |
| Quiabaya | \$2,711,304 | \$1,320,707 | -\$1,390,597 |
| Quillacas | \$2,006,881 | \$10,106,716 | \$8,099,835 |
| Quillacollo | \$818,437 | \$11,669,826 | \$10,851,388 |
| Quime | \$4,059,425 | \$2,931,087 | -\$1,128,338 |
| Quirusillas | \$2,154,273 | \$6,555,612 | \$4,401,338 |
| Ravelo | \$1,416,820 | \$17,428,115 | \$16,011,295 |
| Reyes | \$6,901,009 | \$9,866,540 | \$2,965,530 |
| Riberalta | \$3,802,522 | \$13,702,797 | \$9,900,275 |
| Roboré | \$4,262,294 | \$8,034,936 | \$3,772,642 |
| Rurrenabaque | \$5,183,037 | \$14,378,356 | \$9,195,319 |
| San Pedro De Buena Vista | \$3,291,928 | \$18,469,759 | \$15,177,831 |
| Sabaya | \$2,934,068 | \$1,004,122 | -\$1,929,947 |
| Sacaba | \$346,753 | \$49,091,648 | \$48,744,895 |
| Sacabamba | \$1,111,663 | \$1,856,492 | \$744,829 |
| Saipina | \$1,995,734 | \$16,029,154 | \$14,033,420 |
| Salinas de Garcí Mendoza | \$3,932,257 | \$31,805,952 | \$27,873,696 |
| Samaipata | \$3,718,397 | \$19,794,887 | \$16,076,491 |
| San Agustín | \$4,842,409 | \$1,681,697 | -\$3,160,712 |
| San Andrés | \$4,883,735 | \$17,222,668 | \$12,338,934 |
| San Andrés de Machaca | \$1,508,441 | \$3,133,693 | \$1,625,253 |
| San Antonio de Esmoruco | \$5,739,624 | \$96,750 | -\$5,642,874 |
| San Antonio de Lomerío | \$1,518,816 | \$3,733,920 | \$2,215,104 |
| San Benito | \$353,273 | \$4,765,596 | \$4,412,323 |
| San Borja | \$5,776,001 | \$24,753,988 | \$18,977,987 |
| San Buenaventura | \$7,062,693 | \$4,799,624 | -\$2,263,069 |
| San Carlos | \$1,260,951 | \$30,226,070 | \$28,965,119 |
| San Ignacio | \$6,729,124 | \$13,852,047 | \$7,122,923 |
| San Ignacio de Velasco | \$6,420,208 | \$46,501,023 | \$40,080,815 |
| San Javier | \$3,124,035 | \$20,164,018 | \$17,039,983 |
| San Joaquín | \$5,595,052 | \$3,781,411 | -\$1,813,641 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|--------------------------|-------------|---------------|---------------|
| Municipios | | | |
| San José de Chiquitos | \$4,040,702 | \$57,529,187 | \$53,488,485 |
| San Juan De Yapacaní | \$3,181,550 | \$37,194,860 | \$34,013,311 |
| San Julián | \$2,593,967 | \$324,873,370 | \$322,279,404 |
| San Lorenzo | \$3,246,584 | \$2,660,696 | -\$585,888 |
| San Lucas | \$2,434,854 | \$15,247,923 | \$12,813,069 |
| San Matías | \$6,978,667 | \$15,549,682 | \$8,571,015 |
| San Miguel de Velasco | \$2,699,013 | \$11,882,785 | \$9,183,772 |
| San Pablo de Lípez | \$5,153,971 | \$151,777 | -\$5,002,193 |
| San Pedro | \$3,101,694 | \$61,959,835 | \$58,858,141 |
| San Pedro de Curahuara | \$1,624,875 | \$12,747,882 | \$11,123,007 |
| San Pedro de Quemes | \$4,163,130 | \$1,254,712 | -\$2,908,418 |
| San Pedro de Tiquina | \$760,395 | \$747,057 | -\$13,338 |
| San Pedro de Totora | \$1,884,251 | \$4,576,205 | \$2,691,954 |
| San Rafael | \$3,519,718 | \$8,660,880 | \$5,141,163 |
| San Ramón | \$2,755,940 | \$6,338,146 | \$3,582,206 |
| Santa Ana de Yacuma | \$4,991,974 | \$9,563,993 | \$4,572,019 |
| Santa Cruz de la Sierra | \$402,177 | \$19,009,919 | \$18,607,742 |
| Santa Rosa | \$4,563,589 | \$11,159,003 | \$6,595,414 |
| Santa Rosa del Sara | \$3,375,184 | \$84,938,594 | \$81,563,411 |
| Santiago de Andamarca | \$2,936,406 | \$4,856,216 | \$1,919,810 |
| Santiago de Huata | \$919,330 | \$1,609,015 | \$689,685 |
| Santiago de Machaca | \$1,716,903 | \$1,339,567 | -\$377,337 |
| Santiváñez | \$419,300 | \$2,956,215 | \$2,536,915 |
| Santos Mercado | \$6,765,952 | \$623,003 | -\$6,142,949 |
| Sapahaqui | \$1,634,814 | \$15,540,883 | \$13,906,068 |
| Sena | \$7,041,631 | \$1,254,509 | -\$5,787,122 |
| Shinahota | \$3,291,730 | \$29,455,486 | \$26,163,757 |
| Sica Sica | \$1,190,077 | \$22,619,751 | \$21,429,674 |
| Sicaya | \$1,052,366 | \$1,870,013 | \$817,647 |
| Sipesipe | \$436,701 | \$15,202,304 | \$14,765,603 |
| Sopachuy | \$2,105,999 | \$5,851,447 | \$3,745,448 |
| Pari - Paria - Soracachi | \$642,821 | \$23,781,065 | \$23,138,243 |
| Sorata | \$5,450,368 | \$8,707,176 | \$3,256,808 |
| Sucre | \$635,198 | \$11,644,191 | \$11,008,993 |
| Tacachi | \$679,123 | \$74,818 | -\$604,305 |
| Tacacoma | \$5,018,588 | \$2,850,999 | -\$2,167,588 |
| Tacobamba | \$1,533,692 | \$3,683,578 | \$2,149,886 |
| Tacopaya | \$985,494 | \$4,841,607 | \$3,856,113 |
| Tahua | \$5,709,100 | \$938,436 | -\$4,770,665 |
| Tapacarí | \$954,787 | \$15,288,546 | \$14,333,759 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|-------------------------|--------------|--------------|--------------|
| Municipios | | | |
| Tarabuco | \$929,888 | \$12,378,215 | \$11,448,327 |
| Taraco | \$1,092,911 | \$2,449,431 | \$1,356,521 |
| Tarata | \$788,124 | \$1,280,360 | \$492,236 |
| Tarija | \$1,633,605 | \$36,830,114 | \$35,196,509 |
| Tarvita | \$3,000,073 | \$15,411,169 | \$12,411,095 |
| Teoponte | \$4,618,757 | \$15,299,361 | \$10,680,604 |
| Tiahuanacu | \$740,853 | \$10,218,989 | \$9,478,136 |
| Tinguipaya | \$1,390,166 | \$11,268,747 | \$9,878,581 |
| Tipuani | \$3,254,634 | \$702,421 | -\$2,552,213 |
| Tiquipaya | \$620,216 | \$16,960,297 | \$16,340,081 |
| Tiraque | \$6,083,633 | \$34,830,691 | \$28,747,059 |
| Tito Yupanqui | \$834,594 | \$364,437 | -\$470,158 |
| Todos Santos | \$3,659,371 | \$114,628 | -\$3,544,743 |
| Toco | \$454,744 | \$4,157,485 | \$3,702,742 |
| Tolata | \$290,586 | \$884,136 | \$593,550 |
| Toledo | \$1,875,734 | \$3,481,282 | \$1,605,549 |
| Tomave | \$2,596,441 | \$8,867,246 | \$6,270,805 |
| Tomina | \$1,343,719 | \$8,600,555 | \$7,256,836 |
| Toro Toro | \$2,640,114 | \$8,601,027 | \$5,960,914 |
| Totora | \$3,207,489 | \$32,853,430 | \$29,645,941 |
| Trigal | \$1,914,964 | \$5,453,193 | \$3,538,229 |
| Trinidad | \$1,615,451 | \$4,135,791 | \$2,520,340 |
| Tupiza | \$2,997,833 | \$14,064,441 | \$11,066,608 |
| Turco | \$2,430,146 | \$529,854 | -\$1,900,292 |
| Umala | \$1,282,641 | \$14,366,665 | \$13,084,024 |
| Uncía | \$1,239,138 | \$5,795,986 | \$4,556,848 |
| Uriondo | \$962,119 | \$36,026,444 | \$35,064,326 |
| Urmiri | \$2,603,287 | \$1,476,832 | -\$1,126,455 |
| Urubichá | \$13,063,471 | \$3,295,393 | -\$9,768,078 |
| Uyuni | \$2,574,685 | \$38,246,090 | \$35,671,405 |
| Vacas | \$751,215 | \$11,557,361 | \$10,806,146 |
| Vallegrande | \$3,566,574 | \$21,817,733 | \$18,251,159 |
| Viacha | \$373,264 | \$19,459,346 | \$19,086,082 |
| Vila Vila | \$1,931,255 | \$2,293,273 | \$362,018 |
| Villa Abecia | \$2,213,720 | \$2,996,695 | \$782,975 |
| Villa Alcalá | \$1,702,073 | \$4,847,634 | \$3,145,561 |
| Villa Charcas | \$3,120,738 | \$12,364,241 | \$9,243,503 |
| Villa de Sacaca | \$1,757,992 | \$10,940,985 | \$9,182,994 |
| Villa Libertad Licoma | \$3,382,736 | \$1,207,356 | -\$2,175,381 |
| Villa Nueva (Loma Alta) | \$3,849,344 | \$697,077 | -\$3,152,267 |

| País: Bolivia | Costo total | VIPN | Beneficio |
|-------------------|-------------|---------------|---------------|
| Municipios | | | |
| Villa Rivero | \$630,824 | \$1,620,191 | \$989,366 |
| Villa San Lorenzo | \$1,357,851 | \$18,313,132 | \$16,955,282 |
| Villa Serrano | \$2,519,809 | \$15,383,681 | \$12,863,872 |
| Villa Tunari | \$7,325,862 | \$143,754,681 | \$136,428,819 |
| Villamontes | \$3,204,094 | \$30,501,986 | \$27,297,892 |
| Villazón | \$2,684,135 | \$9,456,824 | \$6,772,689 |
| Vinto | \$312,964 | \$7,906,995 | \$7,594,031 |
| Vitichi | \$1,764,299 | \$4,699,657 | \$2,935,358 |
| Waldo Ballivián | \$1,173,644 | \$6,399,923 | \$5,226,279 |
| Warnes | \$500,257 | \$11,247,452 | \$10,747,195 |
| Yaco | \$1,638,320 | \$5,226,122 | \$3,587,802 |
| Yacuiba | \$1,473,167 | \$31,434,380 | \$29,961,213 |
| Yamparáez | \$733,369 | \$4,846,092 | \$4,112,724 |
| Yanacachi | \$2,439,227 | \$1,171,109 | -\$1,268,119 |
| Yapacaní | \$6,477,854 | \$68,345,616 | \$61,867,762 |
| Yocalla | \$1,104,094 | \$3,811,018 | \$2,706,924 |
| Yotala | \$502,853 | \$2,468,684 | \$1,965,831 |
| Yunchará | \$1,635,686 | \$3,894,672 | \$2,258,986 |
| Zudáñez | \$1,146,553 | \$5,248,874 | \$4,102,320 |

| País: Colombia | Costo | VIPN | Beneficio |
|--------------------|---------------|-----------------|-----------------|
| Departamentos | | | |
| Antioquia | \$27,252,552 | \$2,288,703,828 | \$2,261,451,276 |
| Atlántico | \$9,120,608 | \$104,711,733 | \$95,591,125 |
| Santa Fe de Bogotá | \$7,126,646 | \$19,012,834 | \$11,886,188 |
| Bolívar | \$32,430,184 | \$935,584,227 | \$903,154,043 |
| Boyacá | \$15,703,658 | \$1,250,273,843 | \$1,234,570,185 |
| Caldas | \$15,695,756 | \$787,787,947 | \$772,092,191 |
| Caquetá | \$87,243,962 | \$448,403,531 | \$361,159,569 |
| Cauca | \$33,208,116 | \$1,249,419,027 | \$1,216,210,911 |
| Cesar | \$33,848,833 | \$827,397,836 | \$793,549,003 |
| Córdoba | \$11,573,451 | \$821,462,066 | \$809,888,614 |
| Cundinamarca | \$15,462,040 | \$1,546,377,488 | \$1,530,915,448 |
| Chocó | \$132,839,924 | \$571,370,647 | \$438,530,723 |
| Huila | \$26,044,886 | \$1,193,117,173 | \$1,167,072,287 |
| La Guajira | \$38,510,462 | \$321,205,390 | \$282,694,928 |
| Magdalena | \$34,176,310 | \$790,270,097 | \$756,093,787 |
| Meta | \$49,283,371 | \$784,603,667 | \$735,320,296 |
| Nariño | \$48,898,995 | \$1,206,707,129 | \$1,157,808,134 |

| | | | |
|--------------------|---------------|-----------------|-----------------|
| Norte de Santander | \$34,407,617 | \$674,594,466 | \$640,186,849 |
| Quindio | \$8,681,650 | \$234,767,438 | \$226,085,788 |
| Risaralda | \$15,788,144 | \$486,278,526 | \$470,490,382 |
| Santander | \$25,988,957 | \$1,567,300,019 | \$1,541,311,063 |
| Sucre | \$19,721,916 | \$530,571,602 | \$510,849,686 |
| Tolima | \$33,877,527 | \$1,832,381,290 | \$1,798,503,763 |
| Valle | \$34,619,277 | \$987,672,196 | \$953,052,920 |
| Arauca | \$49,654,788 | \$390,721,521 | \$341,066,733 |
| Casanare | \$37,582,827 | \$227,590,352 | \$190,007,525 |
| Putumayo | \$43,865,624 | \$20,720,283 | -\$23,145,341 |
| San Andres | \$35,150,369 | \$251,944 | -\$34,898,425 |
| Amazonas | \$841,251,471 | \$11,541,030 | -\$829,710,441 |
| Guainia | \$830,097,844 | \$19,439,352 | -\$810,658,493 |
| Guaviare | \$99,421,981 | \$13,883,790 | -\$85,538,191 |
| Vaupes | \$738,203,027 | \$3,780,237 | -\$734,422,789 |
| Vichada | \$271,743,667 | \$23,396,715 | -\$248,346,952 |

| País: Ecuador | Costo | VIPN | Beneficio |
|--------------------------------|--------------|---------------|---------------|
| Provincias | | | |
| AZUAY | \$14,919,944 | \$37,091,253 | \$22,171,309 |
| BOLIVAR | \$17,303,993 | \$39,956,887 | \$22,652,894 |
| CAÑAR | \$14,442,052 | \$71,835,995 | \$57,393,943 |
| CARCHI | \$19,358,531 | \$71,411,533 | \$52,053,002 |
| COTOPAXI | \$11,115,085 | \$95,282,499 | \$84,167,414 |
| CHIMBORAZO | \$15,607,763 | \$31,309,418 | \$15,701,656 |
| EL ORO | \$14,967,717 | \$163,031,476 | \$148,063,759 |
| ESMERALDAS | \$36,640,786 | \$320,840,027 | \$284,199,241 |
| GUAYAS | \$10,221,372 | \$659,814,808 | \$649,593,436 |
| IMBABURA | \$18,487,498 | \$49,693,117 | \$31,205,620 |
| LOJA | \$16,168,695 | \$32,760,452 | \$16,591,757 |
| LOS RIOS | \$11,527,692 | \$503,326,145 | \$491,798,453 |
| MANABI | \$10,847,394 | \$402,104,760 | \$391,257,366 |
| MORONA SANTIAGO | \$83,545,503 | \$22,304,928 | -\$61,240,575 |
| NAPO | \$64,539,832 | \$8,405,602 | -\$56,134,230 |
| PASTAZA | \$99,024,039 | \$4,603,972 | -\$94,420,067 |
| PICHINCHA | \$12,038,534 | \$235,946,983 | \$223,908,449 |
| TUNGURAHUA | \$6,481,833 | \$32,630,649 | \$26,148,816 |
| ZAMORA CHINCHIPE | \$67,134,970 | \$7,535,012 | -\$59,599,958 |
| SUCUMBIOS | \$41,205,790 | \$25,589,727 | -\$15,616,064 |
| ORELLANA | \$27,446,420 | \$25,226,307 | -\$2,220,113 |
| SANTO DOMINGO DE LOS TSACHILAS | \$7,024,605 | \$193,504,748 | \$186,480,143 |

| | | | |
|----------------------|--------------|--------------|--------------|
| SANTA ELENA | \$20,121,820 | \$23,999,080 | \$3,877,260 |
| ZONAS NO DELIMITADAS | \$25,389,527 | \$15,690,262 | -\$9,699,265 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------|-------------|---------------|---------------|
| Municipio | | | |
| CHACHAPOYAS | \$69,473 | -\$1,361,047 | 1,430,520.27 |
| ASUNCION | \$41,743 | -\$2,295,031 | 2,336,773.85 |
| BALSAS | \$158,866 | -\$1,549,392 | 1,708,258.55 |
| CHETO | \$134,967 | -\$2,839,298 | 2,974,265.35 |
| CHILIQUN | \$63,567 | -\$5,213,746 | 5,277,313.33 |
| CHUQUIBAMBA | \$270,276 | -\$2,223,844 | 2,494,120.05 |
| GRANADA | \$70,020 | -\$7,246,049 | 7,316,068.83 |
| HUANCAS | \$38,074 | -\$1,432,163 | 1,470,237.55 |
| LA JALCA | \$260,139 | -\$1,642,825 | 1,902,964.39 |
| LEIMEBAMBA | \$542,247 | -\$2,156,919 | 2,699,165.91 |
| LEVANTO | \$143,658 | -\$1,729,128 | 1,872,785.71 |
| MAGDALENA | \$582,220 | -\$1,105,055 | 1,687,274.37 |
| MARISCAL CASTILLA | \$249,818 | -\$1,898,496 | 2,148,313.61 |
| MOLINOPAMPA | \$1,065,482 | -\$2,522,061 | 3,587,543.31 |
| MONTEVIDEO | \$62,401 | -\$5,445,348 | 5,507,748.59 |
| OLLEROS | \$101,387 | -\$4,451,728 | 4,553,114.55 |
| QUINJALCA | \$1,615,678 | -\$2,879,308 | 4,494,986.81 |
| SAN FRANCISCO DE DAGUAS | \$91,082 | -\$1,385,123 | 1,476,204.91 |
| SAN ISIDRO DE MAINO | \$90,587 | -\$2,399,264 | 2,489,850.25 |
| SOLOCO | \$247,537 | -\$3,681,569 | 3,929,106.59 |
| SONCHE | \$38,888 | -\$2,273,497 | 2,312,384.93 |
| BAGUA | \$209,113 | -\$1,292,089 | 1,501,201.37 |
| ARAMANGO | \$641,311 | -\$4,033,196 | 4,674,507.85 |
| COPALLIN | \$443,302 | -\$3,102,221 | 3,545,523.15 |
| EL PARCO | \$60,869 | -\$1,569,540 | 1,630,408.33 |
| IMAZA | \$1,184,039 | -\$10,232,829 | 11,416,867.63 |
| LA PECA | \$268,662 | -\$2,340,273 | 2,608,934.75 |
| JUMBILLA | \$220,161 | -\$3,418,985 | 3,639,145.73 |
| CHISQUILLA | \$79,185 | -\$7,292,618 | 7,371,803.41 |
| CHURUJA | \$40,416 | -\$1,734,669 | 1,775,084.99 |
| COROSHA | \$91,789 | -\$2,767,390 | 2,859,178.33 |
| CUISPES | \$129,165 | -\$1,935,406 | 2,064,570.77 |
| FLORIDA | \$324,600 | -\$1,930,326 | 2,254,926.15 |
| JAZAN | \$131,579 | -\$1,628,848 | 1,760,427.07 |
| RECTA | \$119,369 | -\$1,922,198 | 2,041,567.87 |
| SAN CARLOS | \$55,099 | -\$2,334,195 | 2,389,294.61 |
| SHIPASBAMBA | \$259,474 | -\$1,862,769 | 2,122,242.67 |
| VALERA | \$186,737 | -\$2,283,241 | 2,469,978.29 |
| YAMBRASBAMBA | \$564,257 | -\$11,841,051 | 12,405,307.83 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------------|-------------|---------------|---------------|
| Municipio | | | |
| NIEVA | \$367,185 | -\$9,066,053 | 9,433,238.43 |
| EL CENEPA | \$267,255 | -\$12,583,384 | 12,850,639.83 |
| RIO SANTIAGO | \$335,315 | -\$14,196,915 | 14,532,230.63 |
| CAMPORREDONDO | \$220,721 | -\$3,746,058 | 3,966,779.25 |
| COCABAMBA | \$163,320 | -\$3,571,708 | 3,735,028.27 |
| COLCAMAR | \$105,412 | -\$2,876,018 | 2,981,430.03 |
| CONILA | \$3,384 | -\$7,657,584 | 7,660,968.03 |
| INGUILPATA | \$18,320 | -\$3,768,707 | 3,787,027.33 |
| LONGUITA | \$180,727 | -\$1,669,684 | 1,850,411.07 |
| LONYA CHICO | \$55,685 | -\$2,234,215 | 2,289,900.03 |
| LUYA | \$59,883 | -\$1,422,819 | 1,482,702.11 |
| LUYA VIEJO | \$50,047 | -\$4,222,060 | 4,272,107.69 |
| MARIA | \$52,030 | -\$3,658,389 | 3,710,418.83 |
| OCALLI | \$280,667 | -\$5,238,498 | 5,519,164.57 |
| OCUMAL | \$205,352 | -\$6,233,684 | 6,439,036.37 |
| PISUQUIA | \$313,311 | -\$5,121,204 | 5,434,515.23 |
| PROVIDENCIA | \$90,493 | -\$4,654,976 | 4,745,468.67 |
| SAN CRISTOBAL | \$50,678 | -\$1,543,690 | 1,594,368.11 |
| SAN FRANCISCO DEL YESO | \$28,339 | -\$1,647,715 | 1,676,053.75 |
| SAN JERONIMO | \$114,706 | -\$2,985,464 | 3,100,169.69 |
| SANTA CATALINA | \$153,479 | -\$5,283,303 | 5,436,781.85 |
| SANTO TOMAS | \$230,653 | -\$1,798,576 | 2,029,228.37 |
| TINGO | \$57,968 | -\$1,292,205 | 1,350,173.29 |
| TRITA | \$82,972 | -\$1,380,128 | 1,463,100.25 |
| SAN NICOLAS | \$23,463 | -\$5,243,438 | 5,266,901.53 |
| CHIRIMOTO | \$197,063 | -\$4,987,084 | 5,184,146.59 |
| COCHAMAL | \$117,036 | -\$5,377,088 | 5,494,124.45 |
| HUAMBO | \$685,193 | -\$1,427,314 | 2,112,507.23 |
| LIMABAMBA | \$894,425 | -\$9,146,517 | 10,040,941.23 |
| LONGAR | \$198,063 | -\$3,645,628 | 3,843,691.35 |
| MARISCAL BENAVIDES | \$109,626 | -\$5,560,436 | 5,670,061.67 |
| MILPUC | \$117,562 | -\$2,115,067 | 2,232,629.21 |
| OMIA | \$1,107,890 | -\$5,882,096 | 6,989,986.35 |
| SANTA ROSA | \$73,089 | -\$1,949,636 | 2,022,725.25 |
| TOTORA | \$134,247 | -\$2,029,284 | 2,163,530.97 |
| VISTA ALEGRE | \$206,652 | -\$10,940,648 | 11,147,300.43 |
| BAGUA GRANDE | \$629,237 | -\$2,112,399 | 2,741,635.99 |
| CAJARURO | \$1,024,907 | -\$13,712,178 | 14,737,084.83 |
| CUMBA | \$1,028,502 | -\$1,777,511 | 2,806,013.03 |
| EL MILAGRO | \$535,870 | -\$1,249,187 | 1,785,057.23 |
| JAMALCA | \$206,655 | -\$3,893,685 | 4,100,339.63 |
| LONYA GRANDE | \$251,791 | -\$3,290,925 | 3,542,715.59 |
| YAMON | \$105,985 | -\$3,086,779 | 3,192,763.67 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------|-------------|--------------|--------------|
| Municipio | | | |
| HUARAZ | \$165,260 | -\$1,946,741 | 2,112,000.33 |
| COCHABAMBA | \$207,231 | -\$1,631,028 | 1,838,258.79 |
| COLCABAMBA | \$236,565 | -\$1,358,740 | 1,595,304.95 |
| HUANCHAY | \$89,429 | -\$2,507,070 | 2,596,499.79 |
| INDEPENDENCIA | \$429,551 | -\$1,670,057 | 2,099,608.29 |
| JANGAS | \$311,249 | -\$1,271,819 | 1,583,068.31 |
| LA LIBERTAD | \$22,353 | -\$1,948,673 | 1,971,025.89 |
| OLLEROS | \$133,884 | -\$2,140,066 | 2,273,950.07 |
| PAMPAS GRANDE | \$69,063 | -\$2,710,805 | 2,779,868.09 |
| PARIACOTO | \$347,571 | -\$1,697,080 | 2,044,651.45 |
| PIRA | \$425,609 | -\$1,566,185 | 1,991,793.99 |
| TARICA | \$231,707 | -\$1,809,697 | 2,041,404.33 |
| AIJA | \$256,512 | -\$1,871,890 | 2,128,402.43 |
| CORIS | \$576,021 | -\$2,375,561 | 2,951,582.13 |
| HUACLLAN | \$59,454 | -\$2,156,659 | 2,216,112.41 |
| LA MERCED | \$305,148 | -\$1,823,422 | 2,128,570.41 |
| SUCCHA | \$60,239 | -\$2,203,597 | 2,263,835.75 |
| LLAMELLIN | \$238,830 | -\$1,830,200 | 2,069,029.27 |
| ACZO | \$180,371 | -\$1,450,444 | 1,630,815.33 |
| CHACCHO | \$160,535 | -\$2,552,156 | 2,712,691.63 |
| CHINGAS | \$380,545 | -\$1,512,467 | 1,893,012.87 |
| MIRGAS | \$555,522 | -\$1,713,260 | 2,268,781.91 |
| SAN JUAN DE RONTOY | \$93,173 | -\$1,987,108 | 2,080,280.97 |
| CHACAS | \$586,598 | -\$2,208,901 | 2,795,499.11 |
| ACOCHACA | \$1,099,907 | -\$1,166,159 | 2,266,066.11 |
| CHIQUIAN | \$55,689 | -\$1,739,035 | 1,794,723.85 |
| ANTONIO RAYMONDI | \$76,844 | -\$1,473,897 | 1,550,741.41 |
| AQUIA | \$136,644 | -\$1,717,606 | 1,854,249.45 |
| CAJACAY | \$285,518 | -\$1,496,959 | 1,782,476.85 |
| COLQUIOC | \$251,450 | -\$1,872,396 | 2,123,845.51 |
| HUALLANCA | \$263,874 | -\$1,598,834 | 1,862,708.39 |
| HUASTA | \$147,660 | -\$2,195,251 | 2,342,911.41 |
| HUAYLLACAYAN | \$120,753 | -\$1,841,394 | 1,962,147.37 |
| LA PRIMAVERA | \$6,903 | -\$2,529,429 | 2,536,332.61 |
| MANGAS | \$32,194 | -\$2,251,708 | 2,283,901.59 |
| PACLLON | \$158,051 | -\$1,993,727 | 2,151,778.29 |
| SAN MIGUEL DE CORPANQUI | \$122,182 | -\$1,661,555 | 1,783,737.81 |
| TICLLOS | \$36,254 | -\$1,500,003 | 1,536,256.65 |
| CARHUAZ | \$315,132 | -\$1,772,897 | 2,088,028.77 |
| ACOPAMPA | \$79,803 | -\$1,202,197 | 1,282,000.05 |
| AMASHCA | \$72,536 | -\$1,238,967 | 1,311,503.11 |
| ANTA | \$167,240 | -\$1,413,858 | 1,581,097.69 |
| ATAQUERO | \$73,267 | -\$1,580,541 | 1,653,807.13 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------|-------------|--------------|--------------|
| Municipio | | | |
| MARCARA | \$488,236 | -\$1,607,781 | 2,096,017.07 |
| PARIAHUANCA | \$121,060 | -\$1,228,265 | 1,349,325.25 |
| SAN MIGUEL DE ACO | \$205,761 | -\$2,429,723 | 2,635,483.73 |
| SHILLA | \$192,604 | -\$2,367,197 | 2,559,800.97 |
| TINCO | \$130,781 | -\$1,094,172 | 1,224,953.45 |
| YUNGAR | \$216,544 | -\$1,541,799 | 1,758,343.23 |
| SAN LUIS | \$559,642 | -\$1,707,113 | 2,266,755.05 |
| SAN NICOLAS | \$255,496 | -\$2,663,366 | 2,918,862.29 |
| YAUYA | \$585,604 | -\$1,943,787 | 2,529,390.67 |
| CASMA | \$506,564 | -\$1,520,706 | 2,027,270.33 |
| BUENA VISTA ALTA | \$387,189 | -\$1,597,844 | 1,985,033.35 |
| COMANDANTE NOEL | \$113,138 | -\$819,623 | 932,760.75 |
| YAUTAN | \$1,339,766 | -\$604,049 | 1,943,815.35 |
| CORONGO | \$165,657 | -\$1,085,824 | 1,251,480.97 |
| ACO | \$58,340 | -\$1,532,356 | 1,590,696.23 |
| BAMBAS | \$115,222 | -\$1,662,972 | 1,778,194.47 |
| CUSCA | \$464,465 | -\$1,331,406 | 1,795,870.85 |
| LA PAMPA | \$158,359 | -\$1,387,978 | 1,546,336.93 |
| YANAC | \$83,375 | -\$1,701,992 | 1,785,367.29 |
| YUPAN | \$80,613 | -\$1,535,611 | 1,616,224.01 |
| HUARI | \$123,870 | -\$2,748,736 | 2,872,606.37 |
| ANRA | \$77,455 | -\$2,015,584 | 2,093,038.57 |
| CAJAY | \$135,691 | -\$1,913,455 | 2,049,145.47 |
| CHAVIN DE HUANTAR | \$362,396 | -\$2,408,404 | 2,770,800.13 |
| HUACACHI | \$140,560 | -\$1,513,212 | 1,653,772.35 |
| HUACCHIS | \$149,416 | -\$1,785,275 | 1,934,691.15 |
| HUACHIS | \$103,668 | -\$2,090,166 | 2,193,833.97 |
| HUANTAR | \$155,265 | -\$2,833,286 | 2,988,551.05 |
| MASIN | \$103,039 | -\$1,972,815 | 2,075,853.55 |
| PAUCAS | \$88,837 | -\$2,111,594 | 2,200,431.07 |
| PONTO | \$82,087 | -\$1,663,794 | 1,745,881.63 |
| RAHUAPAMPA | \$49,835 | -\$1,523,409 | 1,573,244.07 |
| RAPAYAN | \$79,816 | -\$2,423,192 | 2,503,008.93 |
| SAN MARCOS | \$238,539 | -\$1,724,114 | 1,962,653.53 |
| SAN PEDRO DE CHANA | \$94,850 | -\$1,958,483 | 2,053,333.13 |
| UCO | \$61,872 | -\$1,562,898 | 1,624,770.27 |
| HUARMEY | \$1,472,006 | -\$1,652,336 | 3,124,341.79 |
| COCHAPETI | \$185,609 | -\$2,087,618 | 2,273,227.09 |
| CULEBRAS | \$1,715,275 | -\$649,171 | 2,364,446.15 |
| HUAYAN | \$113,685 | -\$2,042,278 | 2,155,962.99 |
| MALVAS | \$213,112 | -\$2,559,891 | 2,773,003.11 |
| CARAZ | \$94,764 | -\$1,620,232 | 1,714,995.51 |
| HUALLANCA | \$3,187 | -\$2,090,442 | 2,093,629.09 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------------|-----------|--------------|--------------|
| Municipio | | | |
| HUATA | \$21,097 | -\$1,341,110 | 1,362,207.17 |
| HUAYLAS | \$5,776 | -\$1,178,827 | 1,184,602.73 |
| MATO | \$14,290 | -\$1,868,853 | 1,883,143.49 |
| PAMPAROMAS | \$210,504 | -\$1,572,425 | 1,782,928.99 |
| PUEBLO LIBRE | \$125,993 | -\$1,303,641 | 1,429,634.49 |
| SANTA CRUZ | \$156,235 | -\$1,909,959 | 2,066,194.33 |
| SANTO TORIBIO | \$62,137 | -\$1,843,296 | 1,905,433.03 |
| YURACMARCA | \$95,902 | -\$2,359,618 | 2,455,520.17 |
| PISCOBAMBA | \$94,974 | -\$1,619,190 | 1,714,163.75 |
| CASCA | \$281,244 | -\$1,804,774 | 2,086,018.19 |
| ELEAZAR GUZMAN BARRON | \$148,813 | -\$2,811,141 | 2,959,953.75 |
| FIDEL OLIVAS ESCUDERO | \$276,396 | -\$2,877,578 | 3,153,974.35 |
| LLAMA | \$77,831 | -\$2,256,631 | 2,334,461.35 |
| LLUMPA | \$505,565 | -\$1,519,793 | 2,025,357.43 |
| LUCMA | \$236,137 | -\$1,879,969 | 2,116,106.59 |
| MUSGA | \$69,405 | -\$1,986,122 | 2,055,527.23 |
| OCROS | \$606,510 | -\$1,023,682 | 1,630,191.51 |
| ACAS | \$24,463 | -\$3,027,319 | 3,051,782.57 |
| CAJAMARQUILLA | \$59,482 | -\$1,675,240 | 1,734,721.69 |
| CARHUAPAMPA | \$95,336 | -\$2,246,794 | 2,342,129.97 |
| COCHAS | \$199,479 | -\$2,323,899 | 2,523,378.91 |
| CONGAS | \$524,770 | -\$1,348,657 | 1,873,427.29 |
| LLIPA | \$9,801 | -\$1,341,258 | 1,351,059.07 |
| SAN CRISTOBAL DE RAJAN | \$93,669 | -\$2,007,755 | 2,101,424.25 |
| SAN PEDRO | \$210,966 | -\$1,723,178 | 1,934,144.29 |
| SANTIAGO DE CHILCAS | \$126,227 | -\$1,430,322 | 1,556,548.93 |
| CABANA | \$132,245 | -\$1,451,787 | 1,584,031.79 |
| BOLOGNESI | \$139,301 | -\$986,269 | 1,125,570.71 |
| CONCHUCOS | \$353,444 | -\$1,770,451 | 2,123,895.09 |
| HUACASCHUQUE | \$12,568 | -\$986,491 | 999,058.83 |
| HUANDOVAL | \$94,077 | -\$1,410,113 | 1,504,189.49 |
| LACABAMBA | \$36,049 | -\$1,527,640 | 1,563,689.19 |
| LLAPO | \$18,854 | -\$892,058 | 910,911.51 |
| PALLASCA | \$177,547 | -\$902,196 | 1,079,743.25 |
| PAMPAS | \$248,558 | -\$1,561,470 | 1,810,028.53 |
| SANTA ROSA | \$113,767 | -\$1,682,441 | 1,796,208.29 |
| TAUCA | \$251,593 | -\$1,057,262 | 1,308,855.39 |
| POMABAMBA | \$598,599 | -\$1,433,497 | 2,032,096.61 |
| HUAYLLAN | \$196,031 | -\$1,956,988 | 2,153,019.27 |
| PAROBAMBA | \$409,138 | -\$3,029,870 | 3,439,008.29 |
| QUINUABAMBA | \$175,797 | -\$4,376,143 | 4,551,940.17 |
| RECUAY | \$62,863 | -\$1,724,402 | 1,787,264.65 |
| CATAC | \$49,030 | -\$1,989,049 | 2,038,078.77 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------|-------------|--------------|--------------|
| Municipio | | | |
| COTAPARACO | \$33,394 | -\$1,974,198 | 2,007,592.25 |
| HUAYLLAPAMPA | \$46,328 | -\$2,352,840 | 2,399,168.43 |
| LLACLLIN | \$82,355 | -\$1,425,846 | 1,508,201.03 |
| MARCA | \$42,613 | -\$2,061,490 | 2,104,103.05 |
| PAMPAS CHICO | \$87,489 | -\$1,369,908 | 1,457,397.81 |
| PARARIN | \$416,766 | -\$2,183,611 | 2,600,376.65 |
| TAPACOCHA | \$28,745 | -\$2,141,583 | 2,170,327.87 |
| TICAPAMPA | \$43,349 | -\$1,720,099 | 1,763,448.49 |
| CHIMBOTE | \$3,000,953 | \$1,410,262 | 1,590,691.79 |
| CACERES DEL PERU | \$322,557 | -\$1,424,267 | 1,746,824.39 |
| MACATE | \$1,144,272 | -\$1,059,485 | 2,203,757.37 |
| MORO | \$393,231 | -\$1,222,179 | 1,615,410.01 |
| NEPEÑA | \$123,435 | -\$966,767 | 1,090,202.41 |
| SAMANCO | \$85,089 | -\$207,235 | 292,323.61 |
| SANTA | \$363,739 | \$226,503 | 137,235.74 |
| NUEVO CHIMBOTE | \$473,270 | -\$443,243 | 916,512.57 |
| SIHUAS | \$84,985 | -\$1,167,144 | 1,252,129.21 |
| ACOBAMBA | \$95,784 | -\$2,205,509 | 2,301,293.07 |
| ALFONSO UGARTE | \$78,580 | -\$2,118,426 | 2,197,006.35 |
| CASHAPAMPA | \$108,635 | -\$908,701 | 1,017,336.09 |
| CHINGALPO | \$108,717 | -\$1,882,457 | 1,991,173.87 |
| HUAYLLABAMBA | \$250,621 | -\$1,445,636 | 1,696,257.23 |
| QUICHES | \$125,467 | -\$1,407,478 | 1,532,945.89 |
| RAGASH | \$255,247 | -\$1,272,720 | 1,527,967.17 |
| SAN JUAN | \$393,672 | -\$917,584 | 1,311,255.95 |
| SICSIBAMBA | \$111,799 | -\$1,241,812 | 1,353,611.33 |
| YUNGAY | \$410,154 | -\$1,725,563 | 2,135,717.33 |
| CASCAPARA | \$108,449 | -\$2,161,690 | 2,270,139.81 |
| MANCOS | \$199,643 | -\$1,387,779 | 1,587,421.73 |
| MATACOTO | \$69,415 | -\$1,308,453 | 1,377,868.53 |
| QUILLO | \$537,480 | -\$2,281,996 | 2,819,475.85 |
| RANRAHIRCA | \$372,696 | -\$830,109 | 1,202,805.25 |
| SHUPLUY | \$151,173 | -\$1,701,828 | 1,853,001.07 |
| YANAMA | \$422,528 | -\$1,939,022 | 2,361,550.53 |
| ABANCAY | \$831,319 | \$241,381 | 589,937.33 |
| CHACOCHE | \$99,221 | -\$1,416,325 | 1,515,546.27 |
| CIRCA | \$224,254 | -\$1,287,309 | 1,511,562.85 |
| CURAHUASI | \$1,277,133 | -\$73,492 | 1,350,624.69 |
| HUANIPACA | \$715,552 | -\$294,167 | 1,009,719.27 |
| LAMBRAMA | \$348,701 | -\$1,136,745 | 1,485,446.03 |
| PICHIRHUA | \$354,106 | -\$1,033,084 | 1,387,189.57 |
| SAN PEDRO DE CACHORA | \$304,426 | -\$287,461 | 591,886.34 |
| TAMBURCO | \$87,853 | -\$406,714 | 494,566.79 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------------|-----------|--------------|--------------|
| Municipio | | | |
| ANDAHUAYLAS | \$519,927 | \$168,217 | 351,710.46 |
| ANDARAPA | \$350,958 | -\$415,750 | 766,707.71 |
| CHIARA | \$68,156 | -\$1,123,191 | 1,191,346.35 |
| HUANCARAMA | \$95,613 | -\$394,495 | 490,107.77 |
| HUANCARAY | \$223,019 | -\$417,346 | 640,364.40 |
| HUAYANA | \$66,366 | -\$446,563 | 512,929.00 |
| KISHUARA | \$448,613 | -\$288,429 | 737,041.78 |
| PACOBAMBA | \$377,332 | -\$979,827 | 1,357,158.89 |
| PACUCHA | \$411,664 | \$101,050 | 310,613.37 |
| PAMPACHIRI | \$95,160 | -\$1,264,429 | 1,359,589.05 |
| POMACOCCHA | \$28,460 | -\$857,149 | 885,608.69 |
| SAN ANTONIO DE CACHI | \$72,683 | -\$1,409,120 | 1,481,803.75 |
| SAN JERONIMO | \$553,648 | -\$123,006 | 676,653.93 |
| SAN MIGUEL DE CHACCRAMPA | \$52,253 | -\$1,186,408 | 1,238,660.47 |
| SANTA MARIA DE CHICMO | \$171,203 | -\$156,448 | 327,650.62 |
| TALAVERA | \$256,735 | -\$71,797 | 328,532.25 |
| TUMAY HUARACA | \$60,251 | -\$850,299 | 910,550.39 |
| TURPO | \$310,317 | -\$497,904 | 808,220.97 |
| KAQUIABAMBA | \$146,548 | -\$1,052,053 | 1,198,601.31 |
| ANTABAMBA | \$357,513 | -\$1,499,187 | 1,856,700.33 |
| EL ORO | \$60,753 | -\$2,454,392 | 2,515,144.93 |
| HUAQUIRCA | \$183,702 | -\$1,912,821 | 2,096,522.49 |
| JUAN ESPINOZA MEDRANO | \$355,762 | -\$2,540,027 | 2,895,789.09 |
| OROPESA | \$264,317 | -\$1,766,443 | 2,030,759.43 |
| PACHACONAS | \$233,975 | -\$2,321,086 | 2,555,061.27 |
| SABAINO | \$166,244 | -\$1,861,527 | 2,027,770.57 |
| CHALHUANCA | \$40,979 | -\$1,609,893 | 1,650,872.29 |
| CAPAYA | \$35,901 | -\$1,100,195 | 1,136,095.73 |
| CARAYBAMBA | \$73,221 | -\$2,009,518 | 2,082,738.51 |
| CHAPIMARCA | \$284,486 | -\$1,511,143 | 1,795,628.87 |
| COLCABAMBA | \$44,797 | -\$1,169,199 | 1,213,995.53 |
| COTARUSE | \$202,039 | -\$1,919,288 | 2,121,327.29 |
| IHUAYLLO | \$63,762 | -\$1,152,586 | 1,216,347.25 |
| JUSTO APU SAHUARAURA | \$106,582 | -\$1,079,382 | 1,185,964.33 |
| LUCRE | \$97,454 | -\$783,362 | 880,815.71 |
| POCOHUANCA | \$140,402 | -\$1,859,580 | 1,999,982.09 |
| SAN JUAN DE CHACÑA | \$78,287 | -\$1,552,693 | 1,630,980.35 |
| SAÑAYCA | \$150,706 | -\$1,246,765 | 1,397,470.39 |
| SORAYA | \$95,385 | -\$1,130,268 | 1,225,653.49 |
| TAPAIRIHUA | \$212,679 | -\$1,698,203 | 1,910,881.65 |
| TINTAY | \$192,565 | -\$1,553,459 | 1,746,023.71 |
| TORAYA | \$116,612 | -\$1,248,416 | 1,365,028.05 |
| YANACA | \$134,145 | -\$1,502,423 | 1,636,568.09 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------------|-------------|--------------|--------------|
| Municipio | | | |
| TAMBOBAMBA | \$508,994 | -\$609,518 | 1,118,512.59 |
| COTABAMBAS | \$375,231 | -\$638,634 | 1,013,864.75 |
| COYLLURQUI | \$562,360 | -\$493,618 | 1,055,978.15 |
| HAQUIRA | \$695,691 | -\$786,109 | 1,481,799.31 |
| MARA | \$486,248 | -\$488,975 | 975,223.43 |
| CHALLHUAHUACHO | \$801,869 | -\$701,895 | 1,503,764.73 |
| CHINCHEROS | \$344,629 | -\$280,729 | 625,358.83 |
| ANCO_HUALLO | \$130,364 | -\$436,914 | 567,277.93 |
| COCHARCAS | \$184,796 | -\$526,517 | 711,312.72 |
| HUACCANA | \$632,636 | -\$855,162 | 1,487,797.75 |
| OCOBAMBA | \$815,012 | -\$115,571 | 930,582.93 |
| ONGOY | \$728,702 | -\$290,547 | 1,019,248.99 |
| URANMARCA | \$299,038 | -\$369,404 | 668,441.34 |
| RANRACANCHA | \$326,127 | -\$112,734 | 438,860.55 |
| CHUQUIBAMBILLA | \$228,084 | -\$1,167,745 | 1,395,829.07 |
| CURPAHUASI | \$310,587 | -\$798,717 | 1,109,304.03 |
| GAMARRA | \$406,706 | -\$1,195,567 | 1,602,273.53 |
| HUAYLLATI | \$226,368 | -\$886,607 | 1,112,975.17 |
| MAMARA | \$112,096 | -\$1,509,556 | 1,621,651.91 |
| MICAELA BASTIDAS | \$76,003 | -\$1,622,614 | 1,698,617.09 |
| PATAYPAMPA | \$73,338 | -\$2,041,500 | 2,114,838.23 |
| PROGRESO | \$1,477,158 | \$259,002 | 1,218,156.55 |
| SAN ANTONIO | \$47,490 | -\$835,283 | 882,773.01 |
| SANTA ROSA | \$98,636 | -\$470,970 | 569,605.83 |
| TURPAY | \$81,353 | -\$858,505 | 939,858.83 |
| VILCABAMBA | \$90,623 | -\$465,977 | 556,600.55 |
| VIRUNDO | \$91,891 | -\$1,363,044 | 1,454,935.09 |
| CURASCO | \$195,711 | -\$1,213,808 | 1,409,518.33 |
| CERRO COLORADO | \$1,980 | -\$680,881 | 682,861.57 |
| CHARACATO | \$100,895 | -\$650,480 | 751,374.91 |
| CHIGUATA | \$203,607 | -\$328,001 | 531,608.08 |
| LA JOYA | \$2,431,403 | \$1,518,839 | 912,564.67 |
| MOLLEBAYA | \$11,075 | -\$135,443 | 146,517.19 |
| POCSI | \$133,856 | -\$815,399 | 949,255.35 |
| POLOBAYA | \$179,430 | -\$817,343 | 996,772.97 |
| QUEQUEÑA | \$51,877 | -\$247,337 | 299,213.90 |
| SABANDIA | \$168,383 | -\$117,535 | 285,918.09 |
| SAN JUAN DE SIGUAS | \$384,939 | -\$313,735 | 698,673.59 |
| SAN JUAN DE TARUCANI | \$4,225 | -\$1,158,722 | 1,162,946.63 |
| SANTA ISABEL DE SIGUAS | \$610,945 | -\$629,367 | 1,240,312.15 |
| SANTA RITA DE SIGUAS | \$216,071 | -\$1,183,008 | 1,399,079.15 |
| SOCABAYA | \$20,289 | -\$49,054 | 69,343.18 |
| TIABAYA | \$173,092 | \$41,040 | 132,051.74 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------------|-------------|--------------|--------------|
| Municipio | | | |
| UCHUMAYO | \$179,704 | -\$139,969 | 319,672.68 |
| VITOR | \$181,408 | -\$1,465,193 | 1,646,601.75 |
| YARABAMBA | \$38,407 | -\$2,101,496 | 2,139,902.77 |
| YURA | \$163,890 | -\$1,088,567 | 1,252,456.29 |
| MARIANO NICOLAS VALCARCEL | \$146,004 | -\$2,939,764 | 3,085,768.55 |
| MARISCAL CACERES | \$13,995 | -\$2,653,692 | 2,667,687.05 |
| NICOLAS DE PIEROLA | \$166,646 | -\$1,685,646 | 1,852,291.41 |
| OCOÑA | \$127,390 | -\$3,346,165 | 3,473,554.45 |
| QUILCA | \$69,969 | -\$1,778,608 | 1,848,576.61 |
| SAMUEL PASTOR | \$269,337 | -\$903,918 | 1,173,255.57 |
| ACARI | \$500,461 | -\$3,549,042 | 4,049,503.11 |
| ATIQUIPA | \$14,635 | -\$3,139,674 | 3,154,308.83 |
| BELLA UNION | \$831,803 | -\$2,461,859 | 3,293,662.67 |
| CAHUACHO | \$58,225 | -\$3,802,708 | 3,860,933.35 |
| CHAPARRA | \$117,036 | -\$3,908,688 | 4,025,723.95 |
| HUANUJUANU | \$14,531 | -\$4,130,488 | 4,145,019.35 |
| JAQUI | \$63,418 | -\$3,564,609 | 3,628,027.23 |
| QUICACHA | \$46,291 | -\$3,715,278 | 3,761,568.37 |
| YAUCA | \$208,284 | -\$3,812,838 | 4,021,121.89 |
| APLAO | \$1,515,213 | -\$2,404,905 | 3,920,118.55 |
| ANDAGUA | \$270,902 | -\$2,922,483 | 3,193,384.53 |
| AYO | \$54,526 | -\$4,388,351 | 4,442,877.49 |
| CHACHAS | \$106,850 | -\$2,953,472 | 3,060,321.43 |
| CHILCAYMARCA | \$68,824 | -\$2,546,343 | 2,615,167.77 |
| CHOCO | \$47,349 | -\$2,955,809 | 3,003,157.91 |
| HUANCARQUI | \$237,186 | -\$4,682,073 | 4,919,258.41 |
| MACHAGUAY | \$88,476 | -\$3,891,644 | 3,980,119.97 |
| ORCOPAMPA | \$30,723 | -\$2,649,057 | 2,679,780.13 |
| PAMPACOLCA | \$353,083 | -\$3,051,637 | 3,404,719.65 |
| TIPAN | \$9,979 | -\$2,727,558 | 2,737,537.87 |
| UÑON | \$36,417 | -\$4,974,163 | 5,010,579.59 |
| URACA | \$1,220,971 | -\$2,016,888 | 3,237,859.27 |
| VIRACO | \$112,809 | -\$4,263,800 | 4,376,609.01 |
| CHIVAY | \$58,957 | -\$1,992,284 | 2,051,241.15 |
| ACHOMA | \$212,404 | -\$2,527,576 | 2,739,979.87 |
| CABANACONDE | \$61,391 | -\$2,652,734 | 2,714,124.27 |
| CALLALLI | \$188,822 | -\$1,875,620 | 2,064,442.01 |
| CAYLLOMA | \$307,729 | -\$2,410,694 | 2,718,422.93 |
| COPORAQUE | \$46,177 | -\$1,576,609 | 1,622,785.59 |
| HUAMBO | \$95,804 | -\$3,343,440 | 3,439,244.35 |
| HUANCA | \$393,902 | -\$2,488,309 | 2,882,211.57 |
| ICHUPAMPA | \$80,171 | -\$2,321,700 | 2,401,871.65 |
| LARI | \$120,420 | -\$3,607,421 | 3,727,841.39 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------|-------------|--------------|--------------|
| Municipio | | | |
| LLUTA | \$91,633 | -\$2,337,688 | 2,429,320.47 |
| MACA | \$13,223 | -\$3,258,306 | 3,271,529.27 |
| MADRIGAL | \$37,796 | -\$3,481,481 | 3,519,276.83 |
| SAN ANTONIO DE CHUCA | \$110,011 | -\$1,507,536 | 1,617,547.13 |
| SIBAYO | \$14,300 | -\$1,580,774 | 1,595,074.07 |
| TAPAY | \$30,823 | -\$3,739,051 | 3,769,874.13 |
| TISCO | \$202,727 | -\$2,364,110 | 2,566,836.89 |
| TUTI | \$63,231 | -\$2,215,582 | 2,278,813.35 |
| YANQUE | \$136,702 | -\$1,865,319 | 2,002,020.79 |
| MAJES | \$4,711,860 | \$3,253,910 | 1,457,949.11 |
| CHUQUIBAMBA | \$164,071 | -\$3,242,361 | 3,406,431.27 |
| ANDARAY | \$34,345 | -\$3,346,430 | 3,380,774.73 |
| CAYARANI | \$233,640 | -\$2,851,047 | 3,084,687.41 |
| CHICHAS | \$74,289 | -\$5,074,378 | 5,148,667.29 |
| IRAY | \$98,989 | -\$3,738,037 | 3,837,026.17 |
| RIO GRANDE | \$261,039 | -\$3,405,974 | 3,667,012.65 |
| SALAMANCA | \$109,072 | -\$3,976,142 | 4,085,214.03 |
| YANAQUIHUA | \$118,328 | -\$4,452,021 | 4,570,349.15 |
| MOLLENDO | \$444,662 | -\$1,207,597 | 1,652,259.05 |
| COCACHACRA | \$1,920,675 | -\$1,203,533 | 3,124,207.85 |
| DEAN VALDIVIA | \$1,832,247 | \$739,253 | 1,092,993.69 |
| MEJIA | \$1,068,901 | -\$595,854 | 1,664,755.43 |
| PUNTA DE BOMBON | \$191,567 | -\$1,461,373 | 1,652,940.59 |
| COTAHUASI | \$303,105 | -\$3,038,183 | 3,341,287.59 |
| ALCA | \$304,188 | -\$4,524,768 | 4,828,956.21 |
| CHARCANA | \$34,965 | -\$3,262,391 | 3,297,356.75 |
| HUAYNACOTAS | \$293,319 | -\$3,081,551 | 3,374,869.53 |
| PAMPAMARCA | \$124,571 | -\$3,563,995 | 3,688,566.63 |
| PUYCA | \$195,934 | -\$2,636,202 | 2,832,136.51 |
| QUECHUALLA | \$67,774 | -\$3,330,196 | 3,397,969.37 |
| SAYLA | \$80,672 | -\$2,810,819 | 2,891,491.17 |
| TAURIA | \$30,381 | -\$5,324,944 | 5,355,324.87 |
| TOMEPA MPA | \$80,296 | -\$5,500,650 | 5,580,945.69 |
| TORO | \$143,673 | -\$4,892,472 | 5,036,144.37 |
| AYACUCHO | \$38,326 | -\$45,450 | 83,775.99 |
| ACOCRO | \$545,876 | \$5,119 | 540,756.93 |
| ACOS VINCHOS | \$337,676 | -\$638,317 | 975,992.29 |
| CHIARA | \$910,484 | \$444,909 | 465,574.18 |
| OCROS | \$298,186 | -\$537,166 | 835,352.33 |
| PACAYCASA | \$69,233 | -\$84,892 | 154,124.39 |
| QUINUA | \$212,230 | -\$170,792 | 383,022.30 |
| SAN JOSE DE TICLLAS | \$110,157 | -\$329,579 | 439,735.83 |
| SAN JUAN BAUTISTA | \$3,887 | -\$27,330 | 31,216.75 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SANTIAGO DE PISCHA | \$59,131 | -\$273,700 | 332,830.47 |
| SOCOS | \$226,293 | -\$97,101 | 323,393.77 |
| TAMBILLO | \$675,674 | \$495,617 | 180,056.95 |
| VINCHOS | \$837,737 | -\$83,671 | 921,408.41 |
| JESUS NAZARENO | \$11,183 | -\$25,876 | 37,058.83 |
| CANGALLO | \$408,768 | -\$396,262 | 805,029.35 |
| CHUSCHI | \$645,539 | -\$260,573 | 906,111.13 |
| LOS MOROCHUCOS | \$2,260,650 | \$1,668,091 | 592,558.78 |
| MARIA PARADO DE BELLIDO | \$300,062 | -\$534,857 | 834,918.69 |
| PARAS | \$550,852 | -\$1,261,771 | 1,812,623.71 |
| TOTOS | \$307,314 | -\$774,451 | 1,081,764.93 |
| SANCOS | \$71,998 | -\$2,198,489 | 2,270,486.87 |
| CARAPO | \$386,378 | -\$631,155 | 1,017,532.93 |
| SACSAMARCA | \$557,635 | -\$1,319,512 | 1,877,147.27 |
| SANTIAGO DE LUCANAMARCA | \$481,115 | -\$1,329,849 | 1,810,963.89 |
| HUANTA | \$464,585 | -\$63,804 | 528,388.79 |
| AYAHUANCO | \$146,466 | -\$2,339,338 | 2,485,803.93 |
| HUAMANGUILLA | \$175,007 | -\$354,719 | 529,725.52 |
| IGUAIN | \$130,778 | -\$257,281 | 388,058.81 |
| LURICOCHA | \$166,675 | -\$430,534 | 597,209.82 |
| SANTILLANA | \$185,856 | -\$1,267,492 | 1,453,348.53 |
| SIVIA | \$394,954 | -\$2,297,562 | 2,692,516.27 |
| LLOCHEGUA | \$2,901,290 | -\$1,536,463 | 4,437,752.99 |
| SAN MIGUEL | \$701,635 | -\$430,150 | 1,131,784.49 |
| ANCO | \$1,409,977 | -\$609,538 | 2,019,515.13 |
| AYNA | \$401,096 | -\$1,578,265 | 1,979,361.25 |
| CHILCAS | \$175,313 | -\$1,538,879 | 1,714,191.87 |
| CHUNGUI | \$763,381 | -\$2,266,750 | 3,030,131.65 |
| LUIS CARRANZA | \$39,063 | -\$1,693,276 | 1,732,338.89 |
| SANTA ROSA | \$815,844 | -\$2,350,081 | 3,165,924.61 |
| TAMBO | \$731,328 | -\$75,093 | 806,420.55 |
| SAMUGARI | \$513,131 | -\$3,478,556 | 3,991,686.91 |
| PUQUIO | \$8,276 | -\$1,815,766 | 1,824,042.65 |
| AUCARA | \$90,786 | -\$2,256,917 | 2,347,702.91 |
| CABANA | \$72,178 | -\$1,925,111 | 1,997,289.97 |
| CHAVIÑA | \$79,300 | -\$1,871,676 | 1,950,975.59 |
| CHIPAO | \$181,165 | -\$1,553,334 | 1,734,498.95 |
| HUAC-HUAS | \$128,474 | -\$1,893,697 | 2,022,170.99 |
| LARAMATE | \$62,612 | -\$1,930,011 | 1,992,622.79 |
| LEONCIO PRADO | \$162,351 | -\$2,262,854 | 2,425,205.33 |
| LLAUTA | \$107,987 | -\$1,564,269 | 1,672,255.33 |
| LUCANAS | \$168,086 | -\$2,218,322 | 2,386,407.87 |
| OCAÑA | \$531,251 | -\$1,527,713 | 2,058,963.79 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------------|-----------|--------------|--------------|
| Municipio | | | |
| OTOCA | \$53,607 | -\$2,191,418 | 2,245,024.21 |
| SAISA | \$1,709 | -\$3,388,455 | 3,390,163.85 |
| SAN CRISTOBAL | \$53,771 | -\$2,741,784 | 2,795,555.35 |
| SAN JUAN | \$9,989 | -\$1,484,104 | 1,494,092.93 |
| SAN PEDRO | \$76,851 | -\$4,161,132 | 4,237,982.59 |
| SAN PEDRO DE PALCO | \$79,985 | -\$3,739,906 | 3,819,890.73 |
| SANCOS | \$157,802 | -\$3,610,426 | 3,768,227.63 |
| SANTA ANA DE HUAYCAHUACHO | \$28,534 | -\$1,677,048 | 1,705,582.71 |
| SANTA LUCIA | \$37,958 | -\$4,022,724 | 4,060,681.55 |
| CORACORA | \$650,265 | -\$1,984,222 | 2,634,486.95 |
| CHUMPI | \$210,591 | -\$2,169,775 | 2,380,365.03 |
| CORONEL CASTAÑEDA | \$230,355 | -\$3,041,700 | 3,272,055.41 |
| PACAPAUSA | \$184,407 | -\$3,292,907 | 3,477,313.65 |
| PULLO | \$149,952 | -\$3,177,743 | 3,327,694.53 |
| PUYUSCA | \$441,823 | -\$2,230,763 | 2,672,586.59 |
| SAN FRANCISCO DE RAVACAYCO | \$62,655 | -\$3,360,841 | 3,423,495.67 |
| UPAHUACHO | \$257,850 | -\$2,913,272 | 3,171,121.63 |
| PAUSA | \$169,732 | -\$2,625,626 | 2,795,358.51 |
| COLTA | \$154,172 | -\$2,723,345 | 2,877,517.01 |
| CORCULLA | \$136,788 | -\$3,035,869 | 3,172,657.13 |
| LAMPA | \$450,480 | -\$3,378,012 | 3,828,491.75 |
| MARCABAMBA | \$203,675 | -\$3,611,179 | 3,814,853.55 |
| OYOLO | \$138,396 | -\$3,037,188 | 3,175,584.57 |
| PARARCA | \$142,756 | -\$2,773,773 | 2,916,529.07 |
| SAN JAVIER DE ALPABAMBA | \$120,913 | -\$3,300,379 | 3,421,291.95 |
| SAN JOSE DE USHUA | \$153,568 | -\$2,753,281 | 2,906,849.13 |
| SARA SARA | \$116,454 | -\$2,398,182 | 2,514,635.81 |
| QUEROBAMBA | \$179,487 | -\$1,377,939 | 1,557,425.83 |
| BELEN | \$34,510 | -\$1,191,424 | 1,225,934.69 |
| CHALCOS | \$95,619 | -\$1,904,280 | 1,999,899.21 |
| CHILCAYOC | \$74,675 | -\$2,113,179 | 2,187,854.77 |
| HUACAÑA | \$43,666 | -\$2,195,145 | 2,238,811.17 |
| MORCOLLA | \$191,195 | -\$1,578,787 | 1,769,981.21 |
| PAICO | \$98,898 | -\$1,700,236 | 1,799,134.25 |
| SAN PEDRO DE LARCAY | \$55,787 | -\$1,152,363 | 1,208,150.27 |
| SAN SALVADOR DE QUIJE | \$294,300 | -\$1,610,348 | 1,904,647.89 |
| SANTIAGO DE PAUCARAY | \$103,772 | -\$557,218 | 660,990.35 |
| SORAS | \$165,275 | -\$1,499,380 | 1,664,654.79 |
| HUANCAPI | \$38,412 | -\$1,975,585 | 2,013,996.95 |
| ALCAMENCA | \$115,734 | -\$978,088 | 1,093,821.75 |
| APONGO | \$53,857 | -\$2,044,026 | 2,097,883.35 |
| ASQUIPATA | \$41,070 | -\$1,919,702 | 1,960,771.71 |
| CANARIA | \$63,508 | -\$1,238,990 | 1,302,497.31 |

| País: Perú | VIPN | Beneficio | Costo |
|-----------------------|-------------|--------------|--------------|
| Municipio | | | |
| CAYARA | \$129,298 | -\$683,812 | 813,110.15 |
| COLCA | \$157,031 | -\$616,023 | 773,054.69 |
| HUAMANQUIQUIA | \$99,821 | -\$823,297 | 923,118.55 |
| HUANCARAYLLA | \$123,770 | -\$832,786 | 956,556.19 |
| HUALLA | \$107,184 | -\$1,002,027 | 1,109,210.79 |
| SARHUA | \$50,174 | -\$2,147,446 | 2,197,619.81 |
| VILCANCHOS | \$259,852 | -\$1,572,461 | 1,832,312.89 |
| VILCAS HUAMAN | \$765,958 | -\$285,460 | 1,051,417.53 |
| ACCOMARCA | \$84,952 | -\$1,205,220 | 1,290,171.87 |
| CARHUANCA | \$448,468 | -\$527,658 | 976,126.23 |
| CONCEPCION | \$164,838 | -\$643,371 | 808,209.13 |
| HUAMBALPA | \$92,739 | -\$966,429 | 1,059,168.29 |
| INDEPENDENCIA | \$93,591 | -\$1,537,552 | 1,631,142.41 |
| SAURAMA | \$194,237 | -\$693,821 | 888,058.83 |
| VISCHONGO | \$890,333 | -\$119,303 | 1,009,635.65 |
| CAJAMARCA | \$373,911 | \$193,046 | 180,864.96 |
| ASUNCION | \$159,503 | -\$830,908 | 990,410.45 |
| CHETILLA | \$56,544 | -\$750,828 | 807,372.19 |
| COSPAN | \$82,234 | -\$1,684,080 | 1,766,313.77 |
| ENCAÑADA | \$590,506 | -\$67,836 | 658,342.26 |
| JESUS | \$257,276 | -\$386,979 | 644,254.58 |
| LLACANORA | \$78,541 | -\$31,930 | 110,471.57 |
| LOS BAÑOS DEL INCA | \$278,550 | \$58,226 | 220,323.90 |
| MAGDALENA | \$127,776 | -\$630,430 | 758,205.11 |
| MATARA | \$57,537 | -\$383,392 | 440,929.45 |
| NAMORA | \$182,876 | -\$310,783 | 493,658.89 |
| SAN JUAN | \$107,089 | -\$184,381 | 291,469.65 |
| CAJABAMBA | \$531,074 | -\$469,229 | 1,000,302.77 |
| CACHACHI | \$1,592,229 | -\$325,760 | 1,917,988.61 |
| CONDEBAMBA | \$1,649,221 | \$849,888 | 799,333.57 |
| SITACOCHA | \$276,108 | -\$2,005,080 | 2,281,188.01 |
| CELENDIN | \$160,038 | -\$1,804,268 | 1,964,305.95 |
| CHUMUCH | \$134,823 | -\$3,281,415 | 3,416,237.75 |
| CORTEGANA | \$297,367 | -\$3,476,362 | 3,773,728.79 |
| HUASMIN | \$349,747 | -\$696,820 | 1,046,566.83 |
| JORGE CHAVEZ | \$22,172 | -\$1,043,448 | 1,065,619.61 |
| JOSE GALVEZ | \$178,837 | -\$275,824 | 454,661.18 |
| MIGUEL IGLESIAS | \$146,862 | -\$1,395,945 | 1,542,806.39 |
| OXAMARCA | \$208,393 | -\$1,290,315 | 1,498,708.31 |
| SOROCHUCO | \$384,582 | -\$591,056 | 975,637.83 |
| SUCRE | \$612,665 | -\$155,413 | 768,078.19 |
| UTCO | \$24,456 | -\$767,045 | 791,500.67 |
| LA LIBERTAD DE PALLAN | \$210,024 | -\$779,477 | 989,500.25 |

| País: Perú | VIPN | Beneficio | Costo |
|-----------------------------|-------------|--------------|--------------|
| Municipio | | | |
| CHOTA | \$447,970 | -\$232,229 | 680,198.97 |
| CHADIN | \$108,979 | -\$2,069,811 | 2,178,789.77 |
| CHIGUIRIP | \$147,411 | -\$745,038 | 892,448.51 |
| CHIMBAN | \$143,960 | -\$4,617,415 | 4,761,374.97 |
| CHOROPAMPA | \$77,143 | -\$4,677,390 | 4,754,533.67 |
| COCHABAMBA | \$158,710 | -\$875,851 | 1,034,561.07 |
| CONCHAN | \$96,433 | -\$830,417 | 926,850.37 |
| HUAMBOS | \$202,240 | -\$1,058,860 | 1,261,099.49 |
| LAJAS | \$203,801 | -\$556,343 | 760,144.65 |
| LLAMA | \$45,329 | -\$1,347,883 | 1,393,212.43 |
| MIRACOSTA | \$61,391 | -\$2,638,438 | 2,699,828.21 |
| PACCHA | \$177,275 | -\$1,622,478 | 1,799,752.15 |
| PION | \$48,535 | -\$3,504,918 | 3,553,453.73 |
| QUEROCOTO | \$213,188 | -\$2,863,757 | 3,076,945.53 |
| TACABAMBA | \$351,305 | -\$1,900,103 | 2,251,408.19 |
| CHALAMARCA | \$263,893 | -\$877,179 | 1,141,071.49 |
| CONTUMAZA | \$1,072,237 | -\$713,647 | 1,785,883.81 |
| CHILETE | \$94,734 | -\$926,108 | 1,020,842.21 |
| CUPISNIQUE | \$152,014 | -\$1,496,263 | 1,648,277.11 |
| GUZMANGO | \$282,767 | -\$669,677 | 952,443.27 |
| SAN BENITO | \$452,443 | -\$962,496 | 1,414,938.83 |
| SANTA CRUZ DE TOLED | \$79,651 | -\$1,396,661 | 1,476,312.21 |
| TANTARICA | \$180,561 | -\$1,172,651 | 1,353,211.73 |
| YONAN | \$383,024 | -\$1,238,630 | 1,621,654.13 |
| CUTERVO | \$897,398 | -\$101,612 | 999,009.99 |
| CALLAYUC | \$384,856 | -\$1,556,362 | 1,941,217.21 |
| CHOROS | \$120,677 | -\$1,776,084 | 1,896,760.97 |
| CUJILLO | \$73,572 | -\$2,393,694 | 2,467,266.19 |
| LA RAMADA | \$71,845 | -\$3,232,282 | 3,304,127.01 |
| PIMPINGOS | \$198,496 | -\$1,606,955 | 1,805,450.15 |
| QUEROCOTILLO | \$527,127 | -\$3,318,988 | 3,846,115.59 |
| SAN ANDRES DE CUTERVO | \$277,125 | -\$2,034,101 | 2,311,225.35 |
| SAN JUAN DE CUTERVO | \$88,347 | -\$2,622,305 | 2,710,651.45 |
| SAN LUIS DE LUCMA | \$97,718 | -\$1,855,520 | 1,953,237.77 |
| SANTA CRUZ | \$127,576 | -\$1,770,929 | 1,898,505.15 |
| SANTO DOMINGO DE LA CAPILLA | \$141,358 | -\$1,433,657 | 1,575,015.63 |
| SANTO TOMAS | \$274,291 | -\$1,721,835 | 1,996,125.95 |
| SOCOTA | \$256,110 | -\$1,506,200 | 1,762,310.37 |
| BAMBAMARCA | \$983,075 | -\$9,609 | 992,684.47 |
| CHUGUR | \$226,725 | -\$616,476 | 843,201.51 |
| HUALGAYOC | \$498,641 | -\$286,233 | 784,874.71 |
| JAEN | \$582,504 | -\$1,243,882 | 1,826,386.23 |
| BELLAVISTA | \$354,862 | -\$1,555,084 | 1,909,946.29 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------|-------------|---------------|---------------|
| Municipio | | | |
| CHONTALI | \$387,140 | -\$6,348,061 | 6,735,200.65 |
| COLASAY | \$476,408 | -\$2,025,162 | 2,501,569.63 |
| HUABAL | \$351,298 | -\$2,598,692 | 2,949,990.39 |
| LAS PIRIAS | \$404,680 | -\$1,259,892 | 1,664,571.91 |
| POMAHUACA | \$400,866 | -\$3,640,882 | 4,041,747.91 |
| PUCARA | \$7,284 | -\$1,952,311 | 1,959,594.37 |
| SALLIQUE | \$274,904 | -\$3,571,602 | 3,846,506.31 |
| SAN FELIPE | \$103,801 | -\$2,321,212 | 2,425,013.67 |
| SAN JOSE DEL ALTO | \$347,009 | -\$5,398,345 | 5,745,354.45 |
| SANTA ROSA | \$500,525 | -\$2,241,894 | 2,742,418.91 |
| SAN IGNACIO | \$864,164 | -\$2,002,397 | 2,866,560.57 |
| CHIRINOS | \$408,649 | -\$2,129,402 | 2,538,050.89 |
| HUARANGO | \$656,140 | -\$11,405,023 | 12,061,163.43 |
| LA COIPA | \$1,028,119 | -\$3,030,150 | 4,058,268.41 |
| NAMBALLE | \$192,857 | -\$7,615,001 | 7,807,858.03 |
| SAN JOSE DE LOURDES | \$698,533 | -\$13,010,299 | 13,708,832.63 |
| TABACONAS | \$1,004,658 | -\$4,626,765 | 5,631,423.31 |
| PEDRO GALVEZ | \$937,291 | \$66,333 | 870,958.17 |
| CHANCAY | \$242,820 | -\$757,010 | 999,829.91 |
| EDUARDO VILLANUEVA | \$405,317 | -\$361,053 | 766,370.27 |
| GREGORIO PITA | \$538,743 | -\$412,061 | 950,804.17 |
| ICHOCAN | \$275,281 | -\$1,833,934 | 2,109,214.97 |
| JOSE MANUEL QUIROZ | \$330,587 | -\$1,414,105 | 1,744,691.71 |
| JOSE SABOGAL | \$1,156,303 | -\$1,818,163 | 2,974,465.89 |
| SAN MIGUEL | \$586,788 | -\$353,272 | 940,060.11 |
| BOLIVAR | \$35,629 | -\$1,763,493 | 1,799,122.41 |
| CALQUIS | \$230,093 | -\$1,601,034 | 1,831,126.67 |
| CATILLUC | \$169,300 | -\$426,594 | 595,893.59 |
| EL PRADO | \$71,563 | -\$1,333,335 | 1,404,897.77 |
| LA FLORIDA | \$39,004 | -\$1,925,716 | 1,964,720.35 |
| LLAPA | \$133,415 | -\$371,653 | 505,068.72 |
| NANCHOC | \$26,811 | -\$2,065,453 | 2,092,264.53 |
| NIEPOS | \$105,011 | -\$1,911,031 | 2,016,042.31 |
| SAN GREGORIO | \$88,147 | -\$1,168,155 | 1,256,302.07 |
| SAN SILVESTRE DE COCHAN | \$135,390 | -\$323,329 | 458,719.19 |
| TONGOD | \$134,727 | -\$611,044 | 745,770.89 |
| UNION AGUA BLANCA | \$167,478 | -\$978,409 | 1,145,887.41 |
| SAN PABLO | \$742,445 | \$390,312 | 352,133.66 |
| SAN BERNARDINO | \$438,537 | -\$202,303 | 640,839.93 |
| SAN LUIS | \$201,461 | -\$527,473 | 728,934.63 |
| TUMBADEN | \$564,701 | \$111,939 | 452,762.27 |
| SANTA CRUZ | \$196,876 | -\$541,262 | 738,138.01 |
| ANDABAMBA | \$114,708 | -\$474,884 | 589,592.19 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------|-----------|--------------|--------------|
| Municipio | | | |
| CATACHE | \$915,777 | -\$1,141,412 | 2,057,189.27 |
| CHANCAYBAÑOS | \$193,808 | -\$908,111 | 1,101,918.83 |
| LA ESPERANZA | \$243,214 | -\$745,097 | 988,311.07 |
| NINABAMBA | \$173,809 | -\$1,116,781 | 1,290,589.97 |
| PULAN | \$361,284 | -\$614,793 | 976,077.39 |
| SAUCEPAMPA | \$67,777 | -\$435,103 | 502,879.36 |
| SEXI | \$26,945 | -\$1,595,001 | 1,621,946.43 |
| UTICYACU | \$148,532 | -\$707,953 | 856,485.25 |
| YAUUYUCAN | \$287,326 | -\$323,707 | 611,033.17 |
| CUSCO | \$426,814 | \$333,360 | 93,454.01 |
| CCORCA | \$237,924 | -\$158,930 | 396,854.08 |
| POROY | \$54,253 | -\$62,561 | 116,814.40 |
| SAN JERONIMO | \$53,239 | -\$97,033 | 150,272.54 |
| SAN SEBASTIAN | \$281,579 | \$239,895 | 41,683.83 |
| SANTIAGO | \$159,082 | \$73,204 | 85,878.26 |
| SAYLLA | \$115,761 | -\$74,583 | 190,344.58 |
| ACOMAYO | \$313,153 | -\$282,081 | 595,234.47 |
| ACOPIA | \$264,372 | -\$434,958 | 699,330.12 |
| ACOS | \$275,446 | -\$705,524 | 980,970.27 |
| MOSOC LLACTA | \$341,363 | -\$342,247 | 683,610.08 |
| POMACANCHI | \$573,542 | -\$482,289 | 1,055,830.89 |
| RONDOCAN | \$510,158 | -\$93,192 | 603,350.64 |
| SANGARARA | \$158,128 | -\$684,632 | 842,759.73 |
| ANTA | \$637,904 | \$365,074 | 272,830.16 |
| ANCAHUASI | \$252,010 | -\$309,048 | 561,058.83 |
| CACHIMAYO | \$165,749 | \$45,326 | 120,423.01 |
| CHINCHAYPUJIO | \$245,966 | -\$491,048 | 737,014.25 |
| HUAROCONDO | \$297,651 | -\$1,536,887 | 1,834,538.07 |
| LIMATAMBO | \$604,352 | -\$832,794 | 1,437,146.23 |
| MOLLEPATA | \$500,565 | -\$1,062,702 | 1,563,266.65 |
| PUCYURA | \$286,397 | \$70,031 | 216,366.53 |
| ZURITE | \$230,329 | -\$269,990 | 500,319.11 |
| CALCA | \$809,668 | -\$98,045 | 907,713.23 |
| COYA | \$167,126 | -\$120,510 | 287,636.08 |
| LAMAY | \$273,878 | -\$125,352 | 399,229.85 |
| LARES | \$436,256 | -\$670,804 | 1,107,059.61 |
| PISAC | \$435,624 | \$112,867 | 322,757.66 |
| SAN SALVADOR | \$237,313 | -\$135,003 | 372,315.91 |
| TARAY | \$141,237 | \$466 | 140,770.94 |
| YANATILE | \$590,886 | -\$4,395,237 | 4,986,123.33 |
| YANAOCA | \$382,307 | -\$601,432 | 983,738.61 |
| CHECCA | \$960,373 | -\$938,019 | 1,898,392.67 |
| KUNTURKANKI | \$263,320 | -\$1,155,175 | 1,418,495.27 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------|-------------|---------------|---------------|
| Municipio | | | |
| LANGUI | \$97,963 | -\$1,070,426 | 1,168,389.33 |
| LAYO | \$686,447 | -\$1,103,561 | 1,790,007.83 |
| PAMPAMARCA | \$87,052 | -\$637,340 | 724,392.14 |
| QUEHUE | \$111,101 | -\$1,230,225 | 1,341,325.85 |
| TUPAC AMARU | \$166,793 | -\$640,065 | 806,857.15 |
| SICUANI | \$405,182 | -\$1,983,983 | 2,389,165.11 |
| CHECACUPE | \$207,468 | -\$2,445,475 | 2,652,942.55 |
| COMBAPATA | \$262,155 | -\$1,826,348 | 2,088,503.11 |
| MARANGANI | \$421,880 | -\$1,366,185 | 1,788,065.33 |
| PITUMARCA | \$432,177 | -\$1,759,179 | 2,191,356.45 |
| SAN PABLO | \$203,424 | -\$3,275,473 | 3,478,896.51 |
| SAN PEDRO | \$188,549 | -\$1,362,011 | 1,550,560.85 |
| TINTA | \$194,763 | -\$742,141 | 936,904.01 |
| SANTO TOMAS | \$164,043 | -\$2,242,606 | 2,406,649.09 |
| CAPACMARCA | \$148,284 | -\$890,056 | 1,038,339.51 |
| CHAMACA | \$399,320 | -\$1,220,221 | 1,619,541.43 |
| COLQUEMARCA | \$159,996 | -\$1,240,336 | 1,400,331.97 |
| LIVITACA | \$426,174 | -\$1,059,331 | 1,485,505.23 |
| LLUSCO | \$48,771 | -\$1,548,275 | 1,597,045.43 |
| QUIÑOTA | \$80,920 | -\$1,128,935 | 1,209,855.23 |
| VELILLE | \$245,092 | -\$1,967,412 | 2,212,504.17 |
| ESPINAR | \$537,812 | -\$1,150,907 | 1,688,719.59 |
| CONDOROMA | \$45,114 | -\$2,417,488 | 2,462,601.23 |
| COPORAQUE | \$1,197,362 | -\$1,086,083 | 2,283,445.75 |
| OCORURO | \$263,814 | -\$1,494,101 | 1,757,914.77 |
| PALLPATA | \$562,543 | -\$1,061,583 | 1,624,126.47 |
| PICHIGUA | \$346,197 | -\$1,069,963 | 1,416,159.83 |
| SUYCKUTAMBO | \$219,781 | -\$2,277,713 | 2,497,494.45 |
| ALTO PICHIGUA | \$356,172 | -\$1,253,640 | 1,609,812.65 |
| SANTA ANA | \$83,383 | -\$2,774,959 | 2,858,342.13 |
| ECHARATE | \$1,112,527 | -\$13,536,357 | 14,648,884.23 |
| HUAYOPATA | \$23,884 | -\$3,038,752 | 3,062,636.15 |
| MARANURA | \$48,514 | -\$2,917,586 | 2,966,099.45 |
| OCOBAMBA | \$96,893 | -\$3,231,942 | 3,328,834.87 |
| QUELLOUNO | \$361,821 | -\$4,381,273 | 4,743,094.75 |
| KIMBIRI | \$584,346 | -\$5,859,431 | 6,443,776.81 |
| SANTA TERESA | \$88,435 | -\$3,189,374 | 3,277,809.65 |
| VILCABAMBA | \$358,970 | -\$3,804,109 | 4,163,079.05 |
| PICHARI | \$540,576 | -\$7,065,506 | 7,606,082.23 |
| PARURO | \$255,948 | -\$196,670 | 452,618.04 |
| ACCHA | \$281,104 | -\$706,850 | 987,954.39 |
| CCAPI | \$341,862 | -\$636,411 | 978,272.23 |
| COLCHA | \$102,396 | -\$1,115,748 | 1,218,143.97 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------|-----------|--------------|--------------|
| Municipio | | | |
| HUANOQUITE | \$578,784 | -\$63,314 | 642,097.78 |
| OMACHA | \$500,485 | -\$995,724 | 1,496,209.33 |
| PACCARITAMBO | \$194,151 | -\$506,769 | 700,920.16 |
| PILLPINTO | \$103,937 | -\$682,629 | 786,565.61 |
| YAURISQUE | \$180,849 | -\$88,871 | 269,719.86 |
| PAUCARTAMBO | \$644,784 | -\$2,919,495 | 3,564,279.19 |
| CAICAY | \$212,149 | -\$199,843 | 411,992.19 |
| CHALLABAMBA | \$767,804 | -\$353,958 | 1,121,761.93 |
| COLQUEPATA | \$600,521 | \$151,493 | 449,028.01 |
| HUANCARANI | \$427,832 | \$33,451 | 394,381.00 |
| KOSÑIPATA | \$663,571 | -\$6,502,189 | 7,165,760.03 |
| URCOS | \$230,860 | -\$197,435 | 428,295.50 |
| ANDAHUAYLILLAS | \$66,483 | -\$323,433 | 389,915.55 |
| CAMANTI | \$7,603 | -\$6,620,163 | 6,627,765.97 |
| CCARHUAYO | \$162,789 | -\$1,680,237 | 1,843,025.87 |
| CCATCA | \$429,807 | -\$199,043 | 628,850.37 |
| CUSIPATA | \$233,195 | -\$1,013,717 | 1,246,912.21 |
| HUARO | \$117,381 | -\$329,574 | 446,955.27 |
| LUCRE | \$49,668 | -\$522,709 | 572,376.24 |
| MARCAPATA | \$146,772 | -\$3,443,202 | 3,589,974.21 |
| OCONGATE | \$777,353 | -\$729,688 | 1,507,041.45 |
| QUIQUIJANA | \$501,883 | -\$444,182 | 946,065.21 |
| URUBAMBA | \$327,650 | -\$484,939 | 812,589.19 |
| CHINCHERO | \$908,093 | \$600,007 | 308,086.35 |
| HUAYLLABAMBA | \$648,364 | \$78,455 | 569,909.15 |
| MACHUPICCHU | \$61,995 | -\$2,149,860 | 2,211,855.19 |
| MARAS | \$985,370 | \$696,566 | 288,803.95 |
| OLLANTAYTAMBO | \$678,921 | -\$944,436 | 1,623,356.13 |
| HUANCAVELICA | \$67,512 | -\$1,236,898 | 1,304,409.47 |
| ACOBAMBILLA | \$283,111 | -\$1,330,764 | 1,613,875.25 |
| ACORIA | \$664,355 | -\$89,921 | 754,276.45 |
| CONAYCA | \$71,650 | -\$531,955 | 603,604.90 |
| CUENCA | \$110,556 | -\$320,249 | 430,805.06 |
| HUACHOCOLPA | \$152,949 | -\$1,518,533 | 1,671,482.03 |
| HUAYLLAHUARA | \$74,885 | -\$1,665,575 | 1,740,460.39 |
| IZCUCHACA | \$5,695 | -\$333,942 | 339,636.62 |
| LARIA | \$41,020 | -\$701,660 | 742,679.91 |
| MANTA | \$43,711 | -\$1,144,569 | 1,188,279.79 |
| MARISCAL CACERES | \$32,911 | -\$483,386 | 516,296.97 |
| MOYA | \$97,202 | -\$834,997 | 932,199.09 |
| NUEVO OCCORO | \$50,558 | -\$1,391,144 | 1,441,702.41 |
| PALCA | \$463,825 | -\$129,106 | 592,930.85 |
| VILCA | \$145,457 | -\$1,679,868 | 1,825,325.81 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------------|-----------|--------------|--------------|
| Municipio | | | |
| YAULI | \$510,098 | -\$262,186 | 772,283.61 |
| HUANDO | \$203,994 | -\$450,575 | 654,568.78 |
| ACOBAMBA | \$278,323 | -\$533,139 | 811,462.17 |
| ANDABAMBA | \$214,411 | -\$827,814 | 1,042,225.25 |
| ANTA | \$317,674 | -\$554,997 | 872,670.53 |
| CAJA | \$182,927 | -\$604,789 | 787,715.57 |
| MARCAS | \$63,633 | -\$538,045 | 601,677.65 |
| PAUCARA | \$772,875 | -\$8,691 | 781,565.43 |
| POMACOGCHA | \$190,285 | -\$594,868 | 785,152.95 |
| ROSARIO | \$446,958 | -\$232,100 | 679,058.86 |
| LIRCAY | \$560,162 | -\$969,032 | 1,529,193.35 |
| ANCHONGA | \$300,526 | -\$407,548 | 708,073.52 |
| CALLANMARCA | \$23,319 | -\$490,762 | 514,080.30 |
| CCOCHACCASA | \$57,649 | -\$672,524 | 730,172.58 |
| CHINCHO | \$65,046 | -\$489,954 | 554,999.78 |
| CONGALLA | \$275,259 | -\$426,258 | 701,517.19 |
| HUANCA-HUANCA | \$59,982 | -\$938,592 | 998,573.39 |
| HUAYLLAY GRANDE | \$76,025 | -\$522,525 | 598,550.11 |
| JULCAMARCA | \$122,582 | -\$268,674 | 391,256.72 |
| SAN ANTONIO DE ANTAPARCO | \$74,461 | -\$232,390 | 306,850.47 |
| SANTO TOMAS DE PATA | \$71,268 | -\$1,182,530 | 1,253,797.91 |
| SECCLLA | \$238,162 | -\$404,420 | 642,581.67 |
| CASTROVIRREYNA | \$210,908 | -\$1,382,764 | 1,593,672.51 |
| ARMA | \$111,534 | -\$1,206,228 | 1,317,762.03 |
| AURAHUA | \$259,801 | -\$1,744,276 | 2,004,077.25 |
| CAPILLAS | \$243,506 | -\$1,828,169 | 2,071,674.77 |
| CHUPAMARCA | \$92,667 | -\$1,125,745 | 1,218,411.85 |
| COCAS | \$49,813 | -\$1,323,855 | 1,373,668.29 |
| HUACHOS | \$109,725 | -\$1,898,525 | 2,008,250.11 |
| HUAMATAMBO | \$56,972 | -\$1,670,969 | 1,727,941.07 |
| MOLLEPAMPA | \$92,044 | -\$1,576,847 | 1,668,890.55 |
| SAN JUAN | \$27,073 | -\$1,998,852 | 2,025,925.01 |
| TANTARA | \$76,316 | -\$1,152,965 | 1,229,280.97 |
| TICRAPO | \$109,065 | -\$1,724,304 | 1,833,369.61 |
| CHURCAMPAMPA | \$90,038 | -\$724,322 | 814,360.01 |
| ANCO | \$325,423 | -\$676,005 | 1,001,428.31 |
| CHINCHIHUASI | \$134,033 | -\$1,748,106 | 1,882,138.57 |
| EL CARMEN | \$174,388 | -\$1,405,266 | 1,579,653.95 |
| LA MERCED | \$41,437 | -\$526,648 | 568,085.05 |
| LOCROJA | \$235,945 | -\$546,510 | 782,454.91 |
| PAUCARBAMBA | \$358,542 | -\$581,933 | 940,475.25 |
| SAN MIGUEL DE MAYOCC | \$20,414 | -\$578,746 | 599,159.80 |
| SAN PEDRO DE CORIS | \$155,419 | -\$711,257 | 866,675.79 |

| País: Perú | VIPN | Beneficio | Costo |
|-----------------------------|-----------|--------------|--------------|
| Municipio | | | |
| PACHAMARCA | \$235,205 | -\$2,282,644 | 2,517,848.89 |
| COSME | \$244,365 | -\$665,988 | 910,353.55 |
| HUAYTARA | \$105,084 | -\$940,628 | 1,045,712.13 |
| AYAVI | \$70,946 | -\$1,195,144 | 1,266,090.05 |
| CORDOVA | \$164,351 | -\$1,613,849 | 1,778,199.65 |
| HUAYACUNDO ARMA | \$9,119 | -\$932,110 | 941,229.31 |
| LARAMARCA | \$221,759 | -\$1,771,324 | 1,993,083.07 |
| OCOYO | \$234,033 | -\$1,911,718 | 2,145,751.73 |
| PILPICHACA | \$88,518 | -\$1,799,714 | 1,888,232.47 |
| QUERCO | \$22,905 | -\$2,963,833 | 2,986,738.79 |
| QUITO-ARMA | \$98,170 | -\$2,347,727 | 2,445,897.21 |
| SAN ANTONIO DE CUSICANCHA | \$127,393 | -\$1,457,967 | 1,585,360.09 |
| SAN FRANCISCO DE SANGAYAICO | \$51,173 | -\$2,016,309 | 2,067,481.19 |
| SAN ISIDRO | \$53,253 | -\$1,589,726 | 1,642,979.45 |
| SANTIAGO DE CHOCORVOS | \$320,324 | -\$2,009,937 | 2,330,261.11 |
| SANTIAGO DE QUIRAHUARA | \$148,487 | -\$2,969,393 | 3,117,880.11 |
| SANTO DOMINGO DE CAPILLAS | \$53,763 | -\$1,546,157 | 1,599,919.59 |
| TAMBO | \$3,875 | -\$1,255,834 | 1,259,709.03 |
| PAMPAS | \$315,726 | -\$347,592 | 663,318.09 |
| ACOSTAMBO | \$245,285 | -\$315,534 | 560,818.62 |
| ACRAQUIA | \$264,470 | -\$142,204 | 406,673.44 |
| AHUAYCHA | \$119,745 | -\$505,832 | 625,577.65 |
| COLCABAMBA | \$934,635 | -\$235,151 | 1,169,786.45 |
| DANIEL HERNANDEZ | \$170,602 | -\$599,038 | 769,639.59 |
| HUACHOCOLPA | \$263,162 | -\$2,303,418 | 2,566,579.37 |
| HUARIBAMBA | \$131,725 | -\$1,045,784 | 1,177,509.09 |
| ÑAHUIMPUQUIO | \$95,532 | -\$317,313 | 412,844.82 |
| PAZOS | \$333,675 | -\$310,193 | 643,868.01 |
| QUISHUAR | \$45,800 | -\$1,215,829 | 1,261,629.33 |
| SALCABAMBA | \$206,985 | -\$1,238,857 | 1,445,841.97 |
| SALCAHUASI | \$139,607 | -\$812,811 | 952,418.11 |
| SAN MARCOS DE ROCCHAC | \$97,427 | -\$987,751 | 1,085,177.81 |
| SURCUBAMBA | \$277,576 | -\$1,921,287 | 2,198,863.01 |
| TINTAY PUNCU | \$175,634 | -\$4,118,369 | 4,294,002.07 |
| HUANUCO | \$99,458 | -\$231,722 | 331,180.27 |
| AMARILIS | \$113,115 | -\$191,864 | 304,979.16 |
| CHINCHAO | \$893,467 | -\$4,389,335 | 5,282,801.91 |
| CHURUBAMBA | \$502,830 | -\$4,261,245 | 4,764,074.49 |
| MARGOS | \$136,456 | -\$1,340,852 | 1,477,307.51 |
| QUISQUI (KICHKI) | \$393,892 | -\$144,581 | 538,472.62 |
| SAN FRANCISCO DE CAYRAN | \$311,696 | -\$351,814 | 663,509.46 |
| SAN PEDRO DE CHAULAN | \$130,296 | -\$1,971,238 | 2,101,534.51 |
| SANTA MARIA DEL VALLE | \$568,328 | -\$1,658,435 | 2,226,763.23 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------------|-------------|--------------|--------------|
| Municipio | | | |
| YARUMAYO | \$169,489 | -\$409,237 | 578,725.51 |
| PILLCO MARCA | \$38,800 | -\$614,519 | 653,318.92 |
| YACUS | \$173,263 | -\$393,113 | 566,376.47 |
| AMBO | \$322,348 | -\$413,493 | 735,840.46 |
| CAYNA | \$78,989 | -\$1,791,095 | 1,870,083.97 |
| COLPAS | \$119,881 | -\$2,708,384 | 2,828,264.83 |
| CONCHAMARCA | \$216,737 | -\$285,718 | 502,455.27 |
| HUACAR | \$296,981 | -\$365,024 | 662,005.19 |
| SAN FRANCISCO | \$308,014 | -\$529,115 | 837,128.33 |
| SAN RAFAEL | \$350,028 | -\$514,718 | 864,746.61 |
| TOMAY KICHWA | \$118,429 | -\$480,174 | 598,603.10 |
| LA UNION | \$60,593 | -\$942,537 | 1,003,129.57 |
| CHUQUIS | \$164,632 | -\$960,408 | 1,125,040.13 |
| MARIAS | \$335,770 | -\$4,783,121 | 5,118,891.17 |
| PACHAS | \$211,445 | -\$945,520 | 1,156,964.47 |
| QUIVILLA | \$90,743 | -\$1,236,329 | 1,327,072.71 |
| RIPAN | \$6,759 | -\$997,721 | 1,004,480.07 |
| SHUNQUI | \$62,782 | -\$765,277 | 828,058.89 |
| SILLAPATA | \$60,505 | -\$1,017,090 | 1,077,595.03 |
| YANAS | \$116,018 | -\$783,533 | 899,551.03 |
| HUACAYBAMBA | \$117,092 | -\$5,882,089 | 5,999,181.85 |
| CANCHABAMBA | \$78,231 | -\$3,077,457 | 3,155,687.45 |
| COCHABAMBA | \$39,238 | -\$9,332,092 | 9,371,330.03 |
| PINRA | \$412,763 | -\$2,923,153 | 3,335,915.93 |
| LLATA | \$300,241 | -\$1,038,071 | 1,338,312.57 |
| ARANCAY | \$80,927 | -\$2,282,663 | 2,363,589.97 |
| CHAVIN DE PARIARCA | \$208,787 | -\$1,036,825 | 1,245,612.03 |
| JACAS GRANDE | \$195,273 | -\$1,731,185 | 1,926,457.91 |
| JIRCAN | \$81,898 | -\$2,897,598 | 2,979,495.67 |
| MIRAFLORES | \$103,477 | -\$1,347,696 | 1,451,172.93 |
| MONZON | \$582,120 | -\$3,853,021 | 4,435,140.05 |
| PUNCHAO | \$119,562 | -\$1,027,759 | 1,147,321.53 |
| PUÑOS | \$151,710 | -\$1,113,561 | 1,265,270.87 |
| SINGA | \$165,289 | -\$1,468,158 | 1,633,446.77 |
| TANTAMAYO | \$85,311 | -\$1,992,091 | 2,077,401.63 |
| RUPA-RUPA | \$375,443 | -\$784,222 | 1,159,664.73 |
| DANIEL ALOMIA ROBLES | \$455,354 | -\$7,936,949 | 8,392,302.63 |
| HERMILIO VALDIZAN | \$308,277 | -\$2,883,944 | 3,192,221.25 |
| JOSE CRESPO Y CASTILLO | \$1,365,979 | -\$7,753,973 | 9,119,952.03 |
| LUYANDO | \$683,472 | \$269,180 | 414,291.96 |
| MARIANO DAMASO BERAUN | \$360,506 | -\$4,026,498 | 4,387,003.79 |
| HUACRACHUCO | \$482,459 | -\$2,117,571 | 2,600,029.59 |
| CHOLON | \$1,750,310 | -\$4,476,275 | 6,226,585.33 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SAN BUENAVENTURA | \$173,915 | -\$3,307,418 | 3,481,332.59 |
| PANAO | \$1,417,294 | -\$1,113,350 | 2,530,643.49 |
| CHAGLLA | \$603,476 | -\$6,987,798 | 7,591,274.83 |
| MOLINO | \$693,771 | -\$570,109 | 1,263,880.41 |
| UMARI | \$988,766 | -\$278,744 | 1,267,510.11 |
| PUERTO INCA | \$293,937 | -\$5,809,620 | 6,103,556.63 |
| CODO DEL POZUZO | \$1,435,376 | -\$7,129,606 | 8,564,981.63 |
| HONORIA | \$554,551 | -\$1,645,778 | 2,200,329.69 |
| TOURNAVISTA | \$707,190 | -\$3,290,582 | 3,997,771.93 |
| YUYAPICHIS | \$595,362 | -\$4,324,127 | 4,919,489.29 |
| JESUS | \$204,461 | -\$1,327,090 | 1,531,550.99 |
| BAÑOS | \$103,876 | -\$1,524,238 | 1,628,113.59 |
| JIVIA | \$107,079 | -\$622,188 | 729,267.19 |
| QUEROPALCA | \$125,994 | -\$1,892,212 | 2,018,206.07 |
| RONDOS | \$382,562 | -\$616,673 | 999,235.69 |
| SAN FRANCISCO DE ASIS | \$125,290 | -\$595,370 | 720,660.77 |
| SAN MIGUEL DE CAURI | \$223,419 | -\$1,784,277 | 2,007,695.85 |
| CHAVINILLO | \$360,086 | -\$498,849 | 858,934.65 |
| CAHUAC | \$138,523 | -\$654,158 | 792,680.97 |
| CHACABAMBA | \$220,471 | -\$212,625 | 433,095.88 |
| APARICIO POMARES | \$437,513 | -\$546,723 | 984,235.89 |
| JACAS CHICO | \$172,074 | -\$96,101 | 268,174.74 |
| OBAS | \$723,045 | -\$837,139 | 1,560,183.81 |
| PAMPAMARCA | \$150,071 | -\$1,432,623 | 1,582,694.61 |
| CHORAS | \$344,674 | -\$198,580 | 543,254.13 |
| LA TINGUIÑA | \$8,790 | -\$288,390 | 297,180.08 |
| LOS AQUIJES | \$14,193 | -\$737,865 | 752,058.67 |
| OCUCAJE | \$604,859 | -\$1,522,165 | 2,127,023.81 |
| PACHACUTEC | \$177 | -\$283,548 | 283,725.47 |
| PARCONA | \$6,249 | -\$28,862 | 35,111.45 |
| PUEBLO NUEVO | \$88,345 | -\$67,936 | 156,281.05 |
| SAN JOSE DE LOS MOLINOS | \$47,653 | -\$1,311,048 | 1,358,701.05 |
| SAN JUAN BAUTISTA | \$197,098 | -\$7,488 | 204,586.62 |
| SANTIAGO | \$4,306,789 | \$1,811,058 | 2,495,731.03 |
| SUBTANJALLA | \$3,172 | -\$1,839,497 | 1,842,669.93 |
| TATE | \$15,812 | -\$29,469 | 45,281.05 |
| YAUCA DEL ROSARIO | \$123,185 | -\$1,579,606 | 1,702,791.43 |
| ALTO LARAN | \$579,773 | -\$212,245 | 792,017.19 |
| CHAVIN | \$161,626 | -\$1,251,092 | 1,412,718.09 |
| CHINCHA BAJA | \$333,414 | \$236,106 | 97,307.86 |
| EL CARMEN | \$1,995,441 | -\$1,001,180 | 2,996,621.49 |
| GROCIO PRADO | \$422,219 | \$38,559 | 383,660.03 |
| SAN JUAN DE YANAC | \$98,152 | -\$1,651,581 | 1,749,733.33 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SAN PEDRO DE HUACARPANA | \$103,398 | -\$1,263,871 | 1,367,268.77 |
| SUNAMPE | \$81,040 | \$62,775 | 18,265.20 |
| NASCA | \$506,882 | -\$1,191,828 | 1,698,709.59 |
| CHANGUILLO | \$1,121,353 | -\$1,406,450 | 2,527,802.63 |
| EL INGENIO | \$328,846 | -\$1,544,043 | 1,872,889.31 |
| VISTA ALEGRE | \$614,476 | -\$1,490,972 | 2,105,448.37 |
| PALPA | \$131,667 | -\$865,477 | 997,143.71 |
| LLIPATA | \$826,778 | -\$692,904 | 1,519,682.13 |
| RIO GRANDE | \$344,857 | -\$1,268,946 | 1,613,802.73 |
| SANTA CRUZ | \$309,417 | -\$967,384 | 1,276,800.81 |
| TIBILLO | \$202,457 | -\$2,272,000 | 2,474,456.77 |
| HUANCANO | \$379,670 | -\$2,503,701 | 2,883,371.15 |
| HUMAY | \$623,714 | -\$1,571,791 | 2,195,504.89 |
| INDEPENDENCIA | \$4,022,158 | \$3,342,776 | 679,381.87 |
| PARACAS | \$44,192 | -\$1,095,163 | 1,139,355.43 |
| SAN ANDRES | \$259,826 | -\$489,995 | 749,820.91 |
| SAN CLEMENTE | \$10,096 | -\$280,481 | 290,577.36 |
| TUPAC AMARU INCA | \$17,097 | -\$444,265 | 461,362.33 |
| CHACAPAMPA | \$59,406 | -\$1,397,062 | 1,456,468.37 |
| CHICCHE | \$71,539 | -\$374,397 | 445,935.62 |
| CHILCA | \$14,179 | -\$239,098 | 253,277.58 |
| CHONGOS ALTO | \$86,179 | -\$1,416,223 | 1,502,402.39 |
| CHUPURO | \$53,693 | -\$222,586 | 276,279.00 |
| COLCA | \$39,050 | -\$620,603 | 659,653.17 |
| CULLHUAS | \$139,834 | -\$226,701 | 366,535.03 |
| EL TAMBO | \$186,806 | -\$318,546 | 505,351.70 |
| HUACRAPUQUIO | \$79,296 | -\$23,834 | 103,130.25 |
| HUALHUAS | \$44,791 | -\$108,461 | 153,251.86 |
| HUANCAN | \$6,054 | -\$11,734 | 17,787.97 |
| HUASICANCHA | \$50,679 | -\$700,171 | 750,850.25 |
| HUAYUCACHI | \$145,325 | \$108,266 | 37,058.83 |
| INGENIO | \$106,454 | -\$469,535 | 575,988.10 |
| PARIAHUANCA | \$448,474 | -\$1,313,475 | 1,761,948.51 |
| PUCARA | \$190,045 | -\$196,732 | 386,777.36 |
| QUICHUAY | \$65,401 | -\$593,518 | 658,918.50 |
| QUILCAS | \$53,598 | -\$1,390,780 | 1,444,377.51 |
| SAN AGUSTIN | \$40,300 | -\$66,780 | 107,080.37 |
| SAN JERONIMO DE TUNAN | \$6,704 | -\$98,702 | 105,406.05 |
| SAPALLANGA | \$277,092 | -\$151,361 | 428,453.42 |
| SANTO DOMINGO DE ACOBAMBA | \$348,151 | -\$5,207,127 | 5,555,278.79 |
| CONCEPCION | \$435,499 | \$328,730 | 106,768.98 |
| ACO | \$162,127 | -\$330,443 | 492,569.98 |
| ANDAMARCA | \$256,716 | -\$2,734,703 | 2,991,419.29 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------|-------------|--------------|--------------|
| Municipio | | | |
| CHAMBARA | \$188,275 | -\$350,278 | 538,552.61 |
| COCHAS | \$199,176 | -\$1,030,878 | 1,230,053.53 |
| COMAS | \$418,527 | -\$1,213,156 | 1,631,682.61 |
| HEROINAS TOLEDO | \$52,845 | -\$264,478 | 317,323.18 |
| MANZANARES | \$239,332 | -\$68,473 | 307,804.85 |
| MARISCAL CASTILLA | \$107,769 | -\$1,377,996 | 1,485,764.97 |
| MATAHUASI | \$393,416 | \$251,049 | 142,366.53 |
| MITO | \$334,300 | \$186,242 | 148,058.83 |
| NUEVE DE JULIO | \$134,497 | -\$24,133 | 158,630.25 |
| SAN JOSE DE QUERO | \$694,767 | -\$215 | 694,981.81 |
| SANTA ROSA DE OCOPA | \$101,127 | -\$105,662 | 206,789.01 |
| CHANCHAMAYO | \$202,653 | -\$3,774,983 | 3,977,635.79 |
| PERENE | \$1,885,001 | -\$1,640,443 | 3,525,443.99 |
| PICHANAQUI | \$1,668,765 | -\$4,560,830 | 6,229,594.91 |
| SAN LUIS DE SHUARO | \$384,293 | -\$1,950,536 | 2,334,829.13 |
| SAN RAMON | \$243,354 | -\$3,224,524 | 3,467,878.65 |
| VITOC | \$203,589 | -\$5,523,981 | 5,727,570.03 |
| ACOLLA | \$305,378 | -\$298,072 | 603,450.02 |
| APATA | \$337,684 | -\$2,042,043 | 2,379,727.15 |
| ATAURA | \$76,948 | -\$162,729 | 239,677.86 |
| CANCHAYLLO | \$163 | -\$1,392,562 | 1,392,724.77 |
| CURICACA | \$13,361 | -\$830,694 | 844,054.73 |
| HUAMALI | \$26,184 | -\$435,494 | 461,677.86 |
| HUARIPAMPA | \$44,935 | -\$217,751 | 262,686.24 |
| HUERTAS | \$71,758 | -\$238,279 | 310,036.62 |
| JANJAILLO | \$38,001 | -\$716,858 | 754,858.83 |
| JULCAN | \$12,539 | -\$581,128 | 593,667.52 |
| LEONOR ORDOÑEZ | \$196,896 | -\$151,950 | 348,845.55 |
| LLOCLLAPAMPA | \$43,714 | -\$883,448 | 927,161.91 |
| MARCO | \$82,866 | -\$305,330 | 388,196.08 |
| MASMA | \$109,131 | -\$290,139 | 399,269.37 |
| MASMA CHICCHE | \$56,162 | -\$678,964 | 735,125.47 |
| MOLINOS | \$69,535 | -\$2,214,060 | 2,283,595.23 |
| MONOBAMBA | \$132,264 | -\$5,899,227 | 6,031,490.25 |
| MUQUI | \$51,805 | -\$211,365 | 263,169.98 |
| PACA | \$110,945 | -\$525,858 | 636,803.01 |
| PACCHA | \$95,798 | -\$750,352 | 846,149.67 |
| PANCAN | \$55,177 | -\$314,882 | 370,058.83 |
| PARCO | \$68,535 | -\$358,889 | 427,423.19 |
| POMACANCHA | \$118,228 | -\$1,428,747 | 1,546,974.81 |
| RICRAN | \$85,810 | -\$2,652,931 | 2,738,740.37 |
| SAN LORENZO | \$256,253 | -\$111,339 | 367,592.12 |
| SAN PEDRO DE CHUNAN | \$19,470 | -\$510,922 | 530,392.12 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------|-------------|---------------|---------------|
| Municipio | | | |
| SINCOS | \$304,060 | -\$546,153 | 850,213.01 |
| TUNAN MARCA | \$20,652 | -\$585,038 | 605,690.45 |
| YAULI | \$61,079 | -\$1,094,527 | 1,155,605.83 |
| YAUYOS | \$124,418 | -\$146,413 | 270,831.57 |
| JUNIN | \$783,179 | -\$230,512 | 1,013,691.59 |
| CARHUAMAYO | \$39,829 | -\$806,044 | 845,873.65 |
| ONDORES | \$224,535 | -\$608,832 | 833,367.65 |
| ULCUMAYO | \$2,393,950 | -\$2,173,459 | 4,567,409.13 |
| SATIPO | \$331,254 | -\$3,254,940 | 3,586,193.55 |
| COVIRIALI | \$195,211 | -\$510,167 | 705,377.92 |
| LLAYLLA | \$158,954 | -\$4,349,957 | 4,508,911.39 |
| PAMPA HERMOSA | \$270,449 | -\$3,699,963 | 3,970,411.91 |
| RIO NEGRO | \$1,812,538 | -\$1,532,693 | 3,345,231.79 |
| RIO TAMBO | \$1,648,751 | -\$10,906,267 | 12,555,017.23 |
| VIZCATAN DEL ENE | \$2,116,818 | -\$3,941,752 | 6,058,569.72 |
| TARMA | \$309,697 | -\$780,541 | 1,090,237.19 |
| ACOBAMBA | \$188,828 | -\$862,315 | 1,051,143.73 |
| HUARICOLCA | \$71,015 | -\$1,045,973 | 1,116,988.19 |
| HUASAHUASI | \$660,938 | -\$2,798,726 | 3,459,663.91 |
| LA UNION | \$71,556 | -\$898,212 | 969,767.41 |
| PALCA | \$406,304 | -\$2,824,019 | 3,230,323.11 |
| PALCAMAYO | \$114,387 | -\$1,102,877 | 1,217,264.11 |
| SAN PEDRO DE CAJAS | \$110,263 | -\$1,279,087 | 1,389,349.63 |
| TAPO | \$412,848 | -\$1,946,554 | 2,359,401.57 |
| LA OROYA | \$16,198 | -\$1,209,073 | 1,225,270.91 |
| CHACAPALPA | \$156,035 | -\$1,094,538 | 1,250,572.99 |
| HUAY-HUAY | \$15,665 | -\$1,385,200 | 1,400,865.51 |
| MARCAPOMACOCHA | \$280 | -\$1,532,556 | 1,532,835.63 |
| MOROCOCHA | \$42,569 | -\$1,331,454 | 1,374,023.49 |
| PACCHA | \$55,088 | -\$1,283,876 | 1,338,964.51 |
| SUITUCANCHA | \$38,685 | -\$2,148,897 | 2,187,582.45 |
| YAULI | \$44,383 | -\$1,472,775 | 1,517,158.73 |
| CHUPACA | \$1,792,399 | \$1,740,266 | 52,132.93 |
| AHUAC | \$370,329 | -\$170,553 | 540,882.58 |
| CHONGOS BAJO | \$142,330 | -\$536,700 | 679,030.07 |
| HUACHAC | \$505,081 | \$384,886 | 120,194.65 |
| HUAMANCACA CHICO | \$42,979 | \$28,345 | 14,634.61 |
| SAN JUAN DE ISCOS | \$189,225 | -\$475,292 | 664,517.19 |
| SAN JUAN DE JARPA | \$356,905 | -\$945,462 | 1,302,367.07 |
| YANACANCHA | \$293,297 | -\$1,091,947 | 1,385,244.11 |
| TRUJILLO | \$59,023 | \$58,123 | 899.77 |
| HUANCHACO | \$22,644 | -\$665,682 | 688,325.51 |
| LAREDO | \$503,109 | -\$777,806 | 1,280,915.21 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------|-------------|--------------|--------------|
| Municipio | | | |
| MOCHE | \$74,705 | \$46,511 | 28,194.22 |
| POROTO | \$314,021 | -\$478,716 | 792,736.47 |
| SALAVERRY | \$0 | -\$522,847 | 522,847.08 |
| SIMBAL | \$46,855 | -\$1,235,392 | 1,282,247.21 |
| VICTOR LARCO HERRERA | \$0 | -\$3,913 | 3,912.97 |
| ASCOPE | \$132,069 | -\$768,219 | 900,287.33 |
| CHICAMA | \$130,271 | -\$904,395 | 1,034,665.41 |
| CHOCOPE | \$671,061 | \$379,043 | 292,018.58 |
| MAGDALENA DE CAO | \$70,245 | -\$426,691 | 496,935.38 |
| PAIJAN | \$251,404 | -\$145,763 | 397,166.44 |
| RAZURI | \$826,685 | \$143,783 | 682,902.64 |
| SANTIAGO DE CAO | \$64,156 | -\$178,198 | 242,354.15 |
| CASA GRANDE | \$324,437 | -\$1,987,771 | 2,312,208.81 |
| BOLIVAR | \$319,220 | -\$4,210,465 | 4,529,684.67 |
| BAMBAMARCA | \$180,643 | -\$3,825,513 | 4,006,155.39 |
| CONDORMARCA | \$115,616 | -\$5,653,176 | 5,768,791.73 |
| LONGOTEA | \$79,578 | -\$1,827,425 | 1,907,003.31 |
| UCHUMARCA | \$143,856 | -\$2,709,282 | 2,853,138.45 |
| UCUNCHA | \$77,717 | -\$2,568,887 | 2,646,603.71 |
| CHEPEN | \$1,053,749 | \$94,810 | 958,938.99 |
| PACANGA | \$1,489,697 | \$577,898 | 911,798.77 |
| PUEBLO NUEVO | \$778,177 | -\$230,240 | 1,008,417.61 |
| JULCAN | \$552,362 | -\$223,688 | 776,050.21 |
| CALAMARCA | \$412,132 | -\$398,668 | 810,799.87 |
| CARABAMBA | \$427,670 | -\$1,147,137 | 1,574,807.69 |
| HUASO | \$430,899 | -\$1,487,124 | 1,918,022.65 |
| OTUZCO | \$391,988 | -\$510,305 | 902,293.47 |
| AGALLPAMPA | \$135,462 | -\$594,903 | 730,365.35 |
| CHARAT | \$65,962 | -\$761,930 | 827,892.39 |
| HUARANCHAL | \$272,280 | -\$1,110,191 | 1,382,471.33 |
| LA CUESTA | \$21,341 | -\$1,019,343 | 1,040,683.83 |
| MACHE | \$43,041 | -\$527,219 | 570,260.43 |
| SALPO | \$209,429 | -\$729,181 | 938,609.71 |
| SINSICAP | \$312,882 | -\$1,590,272 | 1,903,154.57 |
| USQUIL | \$811,886 | -\$273,924 | 1,085,809.77 |
| SAN PEDRO DE LLOC | \$35,790 | -\$1,488,124 | 1,523,914.19 |
| GUADALUPE | \$1,687,482 | \$1,018,387 | 669,094.76 |
| JEQUETEPEQUE | \$129,274 | -\$579,105 | 708,379.14 |
| SAN JOSE | \$4,564,516 | \$3,294,538 | 1,269,978.75 |
| TAYABAMBA | \$201,014 | -\$2,206,141 | 2,407,155.25 |
| BULDIBUYO | \$153,205 | -\$2,360,678 | 2,513,882.49 |
| CHILLIA | \$341,778 | -\$2,655,314 | 2,997,092.87 |
| HUANCASPATA | \$203,914 | -\$2,096,419 | 2,300,333.29 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------|-------------|---------------|---------------|
| Municipio | | | |
| HUAYLILLAS | \$12,296 | -\$3,067,060 | 3,079,355.71 |
| HUAYO | \$136,290 | -\$1,761,364 | 1,897,653.41 |
| ONGON | \$48,747 | -\$11,300,026 | 11,348,772.83 |
| PARCOY | \$171,052 | -\$1,514,701 | 1,685,752.93 |
| PATAZ | \$18,689 | -\$2,989,722 | 3,008,411.17 |
| PIAS | \$58,538 | -\$3,610,072 | 3,668,610.31 |
| SANTIAGO DE CHALLAS | \$73,893 | -\$1,899,660 | 1,973,553.73 |
| TAURIJA | \$117,376 | -\$1,783,396 | 1,900,771.77 |
| URPAY | \$67,926 | -\$1,509,670 | 1,577,595.27 |
| HUAMACHUCO | \$383,165 | -\$525,717 | 908,882.43 |
| CHUGAY | \$405,796 | -\$996,822 | 1,402,617.83 |
| COCHORCO | \$191,056 | -\$1,230,718 | 1,421,774.21 |
| CURGOS | \$236,348 | -\$649,052 | 885,400.75 |
| MARCABAL | \$226,354 | -\$1,034,799 | 1,261,153.51 |
| SANAGORAN | \$368,772 | -\$800,944 | 1,169,716.15 |
| SARIN | \$237,984 | -\$1,156,174 | 1,394,158.15 |
| SARTIMBAMBA | \$307,958 | -\$2,300,482 | 2,608,439.69 |
| SANTIAGO DE CHUCO | \$499,071 | -\$1,279,346 | 1,778,417.21 |
| ANGASMARCA | \$234,919 | -\$920,615 | 1,155,534.05 |
| CACHICADAN | \$236,928 | -\$837,765 | 1,074,692.75 |
| MOLLEBAMBA | \$87,732 | -\$967,347 | 1,055,079.05 |
| MOLLEPATA | \$137,333 | -\$934,619 | 1,071,951.79 |
| QUIRUVILCA | \$290,330 | -\$582,222 | 872,552.13 |
| SANTA CRUZ DE CHUCA | \$136,228 | -\$1,135,641 | 1,271,869.45 |
| SITABAMBA | \$132,287 | -\$1,455,072 | 1,587,358.83 |
| CASCAS | \$1,105,389 | -\$595,101 | 1,700,489.29 |
| LUCMA | \$470,605 | -\$357,076 | 827,680.75 |
| MARMOT | \$181,486 | -\$1,834,830 | 2,016,316.11 |
| SAYAPULLO | \$414,820 | -\$2,109,152 | 2,523,971.65 |
| VIRU | \$1,682,857 | \$484,231 | 1,198,625.73 |
| CHAO | \$1,250,443 | -\$265,858 | 1,516,301.07 |
| CHICLAYO | \$157 | -\$16,552 | 16,708.83 |
| CHONGOYAPE | \$141,834 | -\$907,631 | 1,049,464.67 |
| ETEN | \$26,995 | -\$263,684 | 290,679.40 |
| JOSE LEONARDO ORTIZ | \$100,203 | \$81,083 | 19,119.46 |
| LA VICTORIA | \$116,484 | \$65,751 | 50,732.77 |
| LAGUNAS | \$375,611 | -\$310,029 | 685,639.53 |
| MONSEFU | \$289,932 | \$221,282 | 68,649.51 |
| NUEVA ARICA | \$61,672 | -\$1,777,041 | 1,838,712.41 |
| OYOTUN | \$366,361 | -\$2,038,547 | 2,404,908.61 |
| PICSI | \$87,653 | -\$72,740 | 160,392.19 |
| PIMENTEL | \$56,180 | \$5,099 | 51,081.68 |
| REQUE | \$81,685 | -\$70,795 | 152,480.18 |

| País: Perú | VIPN | Beneficio | Costo |
|-----------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SAÑA | \$86,549 | -\$568,177 | 654,725.51 |
| CAYALTI | \$183,567 | -\$710,626 | 894,193.43 |
| PATAPO | \$259,565 | -\$346,507 | 606,071.32 |
| POMALCA | \$53,117 | -\$47,665 | 100,781.05 |
| PUCALA | \$119,976 | -\$906,312 | 1,026,287.87 |
| TUMAN | \$23,816 | -\$251,488 | 275,304.79 |
| FERREÑAFE | \$49,630 | -\$269,123 | 318,752.19 |
| CAÑARIS | \$690,848 | -\$2,739,268 | 3,430,115.71 |
| INCAHUASI | \$1,345,418 | -\$701,246 | 2,046,663.51 |
| MANUEL ANTONIO MESONES MURO | \$258,837 | -\$538,331 | 797,168.33 |
| PITIPO | \$1,406,126 | \$309,868 | 1,096,257.83 |
| PUEBLO NUEVO | \$120,255 | -\$217,600 | 337,855.14 |
| LAMBAYEQUE | \$365,292 | \$20,501 | 344,790.57 |
| CHOCHOPE | \$75,780 | -\$876,137 | 951,917.87 |
| ILLIMO | \$46,002 | -\$203,190 | 249,192.19 |
| JAYANCA | \$154,782 | -\$923,517 | 1,078,298.77 |
| MOCHUMI | \$265,355 | \$12,867 | 252,487.78 |
| MORROPE | \$481,234 | -\$604,712 | 1,085,946.67 |
| MOTUPE | \$282,284 | -\$712,420 | 994,703.93 |
| OLMOS | \$662,087 | -\$1,880,187 | 2,542,274.07 |
| PACORA | \$164,378 | -\$370,947 | 535,325.55 |
| SALAS | \$171,181 | -\$1,823,364 | 1,994,545.31 |
| SAN JOSE | \$792,691 | \$653,111 | 139,579.69 |
| TUCUME | \$190,553 | -\$55,666 | 246,218.65 |
| CARABAYLLO | \$1,404,045 | \$1,021,118 | 382,926.99 |
| CIENEGUILLA | \$13,536 | -\$344,007 | 357,543.43 |
| LURIN | \$10,483 | -\$289,448 | 299,930.29 |
| PACHACAMAC | \$125,229 | -\$97,555 | 222,784.33 |
| BARRANCA | \$607,957 | -\$39,865 | 647,821.24 |
| PARAMONGA | \$486,187 | -\$638,974 | 1,125,160.75 |
| PATIVILCA | \$285,982 | -\$714,697 | 1,000,678.69 |
| SUPE | \$968,045 | -\$183,401 | 1,151,445.55 |
| CAJATAMBO | \$88,265 | -\$1,547,560 | 1,635,824.39 |
| COPA | \$203,850 | -\$1,829,518 | 2,033,367.93 |
| GORGOR | \$756,861 | -\$1,680,388 | 2,437,248.83 |
| HUANCAPON | \$246,636 | -\$1,463,233 | 1,709,869.53 |
| MANAS | \$442,707 | -\$3,272,750 | 3,715,456.75 |
| ARAHUAY | \$36,400 | -\$1,759,318 | 1,795,717.67 |
| HUAMANTANGA | \$401,047 | -\$1,215,289 | 1,616,335.75 |
| HUAROS | \$130,068 | -\$2,352,114 | 2,482,181.63 |
| LACHAQUI | \$84,473 | -\$1,817,902 | 1,902,374.61 |
| SAN BUENAVENTURA | \$47,139 | -\$2,704,024 | 2,751,162.75 |
| SANTA ROSA DE QUIVES | \$774,317 | -\$230,920 | 1,005,237.83 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SAN VICENTE DE CAÑETE | \$5,977,944 | \$5,222,612 | 755,332.43 |
| ASIA | \$12,928 | -\$1,025,504 | 1,038,432.01 |
| CALANGO | \$180,452 | -\$1,974,725 | 2,155,177.11 |
| CERRO AZUL | \$3,650 | -\$676,541 | 680,190.76 |
| COAYLLO | \$74,571 | -\$2,381,468 | 2,456,038.91 |
| IMPERIAL | \$200,616 | -\$317,442 | 518,058.83 |
| MALA | \$44,275 | -\$632,036 | 676,310.94 |
| NUEVO IMPERIAL | \$471,140 | -\$1,024,924 | 1,496,063.55 |
| PACARAN | \$69,853 | -\$3,453,283 | 3,523,136.67 |
| QUILMANA | \$128,625 | -\$1,667,751 | 1,796,376.27 |
| SAN ANTONIO | \$932 | -\$376,321 | 377,253.26 |
| SAN LUIS | \$24,192 | -\$439,053 | 463,244.07 |
| SANTA CRUZ DE FLORES | \$721,114 | -\$140,957 | 862,070.77 |
| ZUÑIGA | \$21,412 | -\$2,370,997 | 2,392,409.27 |
| HUARAL | \$2,730,012 | \$1,490,174 | 1,239,838.55 |
| ATAVILLOS ALTO | \$121,678 | -\$2,088,574 | 2,210,252.35 |
| ATAVILLOS BAJO | \$68,253 | -\$2,033,940 | 2,102,193.85 |
| AUCALLAMA | \$1,027,700 | -\$116,376 | 1,144,075.89 |
| CHANCAY | \$488,163 | \$120,359 | 367,804.35 |
| IHUARI | \$293,093 | -\$1,613,265 | 1,906,358.77 |
| LAMPIAN | \$53,276 | -\$1,718,530 | 1,771,806.05 |
| PACARAOS | \$55,022 | -\$1,419,697 | 1,474,719.73 |
| SAN MIGUEL DE ACOS | \$21,895 | -\$1,331,624 | 1,353,518.83 |
| SANTA CRUZ DE ANDAMARCA | \$253,273 | -\$950,510 | 1,203,782.79 |
| SUMBILCA | \$245,342 | -\$971,783 | 1,217,124.25 |
| VEINTISIETE DE NOVIEMBRE | \$15,998 | -\$3,093,393 | 3,109,390.83 |
| MATUCANA | \$75,683 | -\$1,497,391 | 1,573,073.13 |
| ANTIOQUIA | \$152,817 | -\$870,908 | 1,023,725.25 |
| CALLAHUANCA | \$4,670 | -\$673,722 | 678,392.19 |
| CHICLA | \$3,515 | -\$955,076 | 958,591.19 |
| HUACHUPAMPA | \$9,731 | -\$1,335,700 | 1,345,430.63 |
| HUAROCHIRI | \$15,091 | -\$2,078,240 | 2,093,330.87 |
| LAHUAYTAMBO | \$8,721 | -\$1,161,077 | 1,169,798.29 |
| LANGA | \$55,053 | -\$871,332 | 926,384.91 |
| MARIATANA | \$107,782 | -\$1,383,260 | 1,491,042.65 |
| SAN ANDRES DE TUPICOCHA | \$13,302 | -\$951,223 | 964,525.25 |
| SAN BARTOLOME | \$43,125 | -\$482,988 | 526,113.21 |
| SAN DAMIAN | \$7,209 | -\$1,961,866 | 1,969,075.25 |
| SAN JUAN DE IRIS | \$161 | -\$2,776,613 | 2,776,774.15 |
| SAN JUAN DE TANTARANCHE | \$33,191 | -\$1,669,458 | 1,702,649.35 |
| SAN LORENZO DE QUINTI | \$89,530 | -\$2,016,229 | 2,105,759.17 |
| SAN MATEO | \$3,891 | -\$1,202,443 | 1,206,333.57 |
| SAN MATEO DE OTAO | \$60,720 | -\$937,641 | 998,361.01 |

| País: Perú | VIPN | Beneficio | Costo |
|------------------------------|-------------|--------------|--------------|
| Municipio | | | |
| SAN PEDRO DE CASTA | \$1,523 | -\$957,997 | 959,519.89 |
| SANTA CRUZ DE COCACHACRA | \$4,681 | -\$397,951 | 402,631.49 |
| SANTA EULALIA | \$58 | -\$593,609 | 593,667.52 |
| SANTIAGO DE ANCHUCAYA | \$21,244 | -\$2,552,848 | 2,574,091.85 |
| SANTIAGO DE TUNA | \$12,501 | -\$608,068 | 620,569.63 |
| SANTO DOMINGO DE LOS OLLEROS | \$94,304 | -\$1,161,604 | 1,255,908.39 |
| SURCO | \$95,267 | -\$1,543,596 | 1,638,862.83 |
| HUACHO | \$28,443 | -\$530,375 | 558,818.85 |
| AMBAR | \$1,694,089 | -\$1,212,957 | 2,907,045.23 |
| CHECRAS | \$202,960 | -\$1,804,411 | 2,007,370.25 |
| HUAURA | \$2,534,179 | \$1,613,440 | 920,738.71 |
| LEONCIO PRADO | \$471,162 | -\$2,175,118 | 2,646,279.59 |
| PACCHO | \$463,941 | -\$1,657,539 | 2,121,480.47 |
| SANTA LEONOR | \$166,090 | -\$2,096,131 | 2,262,221.07 |
| SANTA MARIA | \$327,020 | -\$170,662 | 497,682.04 |
| SAYAN | \$1,423,554 | -\$632,584 | 2,056,138.47 |
| VEGUETA | \$4,444,613 | \$4,050,368 | 394,244.99 |
| OYON | \$171,853 | -\$1,146,183 | 1,318,035.83 |
| ANDAJES | \$204,578 | -\$1,128,851 | 1,333,429.31 |
| CAUJUL | \$948,991 | -\$579,624 | 1,528,615.41 |
| COCHAMARCA | \$629,705 | -\$2,116,376 | 2,746,081.17 |
| NAVAN | \$1,100,187 | -\$926,530 | 2,026,716.81 |
| PACHANGARA | \$121,285 | -\$1,408,828 | 1,530,113.17 |
| ALIS | \$20,821 | -\$859,064 | 879,884.79 |
| ALLAUCA | \$70,583 | -\$3,178,853 | 3,249,435.83 |
| AYAVIRI | \$56,184 | -\$3,929,590 | 3,985,774.31 |
| AZANGARO | \$50,354 | -\$1,195,783 | 1,246,136.69 |
| CACRA | \$51,591 | -\$2,831,721 | 2,883,312.69 |
| CARANIA | \$42,155 | -\$1,868,591 | 1,910,745.49 |
| CATAHUASI | \$2,195,814 | -\$12,172 | 2,207,985.73 |
| CHOCOS | \$91,725 | -\$2,215,784 | 2,307,509.07 |
| COLONIA | \$60,195 | -\$2,977,466 | 3,037,660.41 |
| HONGOS | \$53,843 | -\$2,796,509 | 2,850,352.35 |
| HUAMPARA | \$20,716 | -\$1,362,665 | 1,383,381.53 |
| HUANCAYA | \$122,324 | -\$1,267,712 | 1,390,036.35 |
| HUANGASCAR | \$50,237 | -\$1,113,395 | 1,163,631.87 |
| HUANTAN | \$2,793 | -\$2,304,960 | 2,307,753.27 |
| HUAÑEC | \$75,485 | -\$3,306,809 | 3,382,293.95 |
| LARAOS | \$38,779 | -\$1,418,263 | 1,457,041.87 |
| LINCHA | \$46,547 | -\$1,725,526 | 1,772,073.19 |
| MADEAN | \$144,340 | -\$1,556,525 | 1,700,865.21 |
| MIRAFLORES | \$20,826 | -\$2,599,375 | 2,620,201.25 |
| OMAS | \$37,410 | -\$1,799,474 | 1,836,884.61 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------------|-------------|---------------|---------------|
| Municipio | | | |
| PUTINZA | \$198,843 | -\$1,972,583 | 2,171,426.03 |
| QUINCHES | \$36,642 | -\$2,830,124 | 2,866,766.29 |
| QUINOCAY | \$108,415 | -\$1,658,493 | 1,766,908.73 |
| SAN JOAQUIN | \$35,351 | -\$1,988,775 | 2,024,126.81 |
| SAN PEDRO DE PILAS | \$35,785 | -\$3,065,388 | 3,101,172.39 |
| TAURIPAMPA | \$102,526 | -\$2,822,972 | 2,925,498.61 |
| TOMAS | \$68,393 | -\$947,039 | 1,015,432.07 |
| TUPE | \$57,479 | -\$2,990,615 | 3,048,093.67 |
| VIÑAC | \$130,564 | -\$1,549,670 | 1,680,233.27 |
| IQUITOS | \$66,498 | -\$2,794,042 | 2,860,539.93 |
| ALTO NANAY | \$40,710 | -\$33,531,839 | 33,572,549.03 |
| FERNANDO LORES | \$473,888 | -\$10,703,205 | 11,177,092.83 |
| INDIANA | \$251,537 | -\$13,915,992 | 14,167,529.03 |
| LAS AMAZONAS | \$150,243 | -\$20,336,731 | 20,486,973.63 |
| MAZAN | \$240,563 | -\$26,595,011 | 26,835,574.23 |
| NAPO | \$367,846 | -\$28,858,160 | 29,226,005.84 |
| PUNCHANA | \$163,163 | -\$10,620,357 | 10,783,520.21 |
| PUTUMAYO | \$22,673 | \$22,614 | 58.83 |
| TORRES CAUSANA | \$94,980 | -\$27,768,950 | 27,863,930.03 |
| BELEN | \$104,456 | -\$2,516,817 | 2,621,272.77 |
| SAN JUAN BAUTISTA | \$561,050 | -\$8,050,678 | 8,611,728.36 |
| TENIENTE MANUEL CLAVERO | \$71,120 | \$71,061 | 58.83 |
| YURIMAGUAS | \$1,204,732 | -\$1,940,890 | 3,145,622.71 |
| BALSAPUERTO | \$1,046,108 | -\$8,671,416 | 9,717,524.23 |
| JEBEROS | \$109,184 | -\$16,196,834 | 16,306,018.03 |
| LAGUNAS | \$224,890 | -\$21,475,743 | 21,700,632.83 |
| SANTA CRUZ | \$209,373 | -\$7,524,567 | 7,733,939.43 |
| TENIENTE CESAR LOPEZ ROJAS | \$235,149 | -\$3,688,451 | 3,923,599.51 |
| NAUTA | \$500,163 | -\$12,181,905 | 12,682,067.83 |
| PARINARI | \$433,167 | -\$18,823,535 | 19,256,701.43 |
| TIGRE | \$356,140 | -\$27,081,425 | 27,437,564.23 |
| TROMPETEROS | \$217,935 | -\$25,661,752 | 25,879,686.63 |
| URARINAS | \$471,640 | -\$26,723,670 | 27,195,310.43 |
| RAMON CASTILLA | \$144,621 | -\$34,517,704 | 34,662,324.83 |
| PEBAS | \$270,598 | -\$25,681,409 | 25,952,006.83 |
| YAVARI | \$259,867 | -\$27,628,402 | 27,888,268.63 |
| SAN PABLO | \$541,183 | -\$29,171,607 | 29,712,790.43 |
| REQUENA | \$66,575 | -\$17,454,264 | 17,520,839.03 |
| ALTO TAPICHE | \$98,420 | -\$35,618,376 | 35,716,795.23 |
| CAPELO | \$82,045 | -\$17,983,152 | 18,065,197.83 |
| EMILIO SAN MARTIN | \$145,239 | -\$31,122,757 | 31,267,996.63 |
| MAQUIA | \$280,678 | -\$31,275,801 | 31,556,478.23 |
| PUINAHUA | \$196,062 | -\$23,297,784 | 23,493,845.23 |

| País: Perú | VIPN | Beneficio | Costo |
|-----------------|-------------|---------------|---------------|
| Municipio | | | |
| SAQUENA | \$102,860 | -\$11,589,369 | 11,692,229.03 |
| SOPLIN | \$38,077 | -\$41,547,406 | 41,585,483.63 |
| TAPICHE | \$117,463 | -\$28,105,308 | 28,222,770.83 |
| JENARO HERRERA | \$104,121 | -\$12,240,811 | 12,344,931.23 |
| YAQUERANA | \$87,590 | -\$28,762,560 | 28,850,150.23 |
| CONTAMANA | \$345,345 | -\$22,975,015 | 23,320,359.63 |
| INAHUAYA | \$161,842 | -\$21,540,004 | 21,701,846.43 |
| PADRE MARQUEZ | \$42,808 | -\$10,740,842 | 10,783,649.63 |
| PAMPA HERMOSA | \$751,625 | -\$22,398,305 | 23,149,930.23 |
| SARAYACU | \$484,574 | -\$25,246,764 | 25,731,338.83 |
| VARGAS GUERRA | \$28,533 | -\$24,346,734 | 24,375,266.63 |
| BARRANCA | \$296,037 | -\$15,584,081 | 15,880,118.43 |
| CAHUAPANAS | \$377,282 | -\$17,846,165 | 18,223,446.83 |
| MANSERICHE | \$377,672 | -\$8,934,480 | 9,312,152.23 |
| MORONA | \$576,621 | -\$21,330,131 | 21,906,752.43 |
| PASTAZA | \$357,807 | -\$23,068,254 | 23,426,061.23 |
| ANDOAS | \$460,981 | -\$27,261,106 | 27,722,086.83 |
| TAMBOPATA | \$1,342,779 | -\$16,996,019 | 18,338,798.03 |
| INAMBARI | \$753,190 | -\$6,079,724 | 6,832,913.95 |
| LAS PIEDRAS | \$239,902 | -\$7,274,235 | 7,514,137.23 |
| LABERINTO | \$625,735 | -\$8,187,539 | 8,813,273.83 |
| MANU | \$138,698 | -\$20,368,174 | 20,506,872.23 |
| FITZCARRALD | \$56,692 | -\$20,581,390 | 20,638,081.63 |
| MADRE DE DIOS | \$672,510 | -\$9,682,546 | 10,355,056.43 |
| HUEPETUHE | \$142,826 | -\$9,082,969 | 9,225,794.23 |
| ÑAPARI | \$713,323 | -\$19,280,640 | 19,993,963.43 |
| IBERIA | \$1,649,334 | -\$3,897,519 | 5,546,853.15 |
| TAHUAMANU | \$1,598,200 | -\$4,049,716 | 5,647,916.43 |
| MOQUEGUA | \$1,350,088 | -\$1,535,932 | 2,886,020.35 |
| CARUMAS | \$166,695 | -\$1,726,468 | 1,893,163.09 |
| CUCHUMBAYA | \$298,669 | -\$1,342,016 | 1,640,685.45 |
| SAMEGUA | \$10,848 | -\$1,399,269 | 1,410,116.25 |
| SAN CRISTOBAL | \$13,279 | -\$1,928,409 | 1,941,688.59 |
| TORATA | \$692,873 | -\$1,387,949 | 2,080,821.91 |
| OMATE | \$379,944 | -\$2,624,011 | 3,003,954.89 |
| CHOJATA | \$73,625 | -\$2,303,731 | 2,377,355.45 |
| COALAUQUE | \$362,513 | -\$2,729,731 | 3,092,243.55 |
| ICHUÑA | \$161,754 | -\$1,855,453 | 2,017,207.07 |
| LA CAPILLA | \$164,880 | -\$3,015,607 | 3,180,486.33 |
| LLOQUE | \$128,974 | -\$1,667,482 | 1,796,456.19 |
| MATALAUQUE | \$58,983 | -\$2,579,738 | 2,638,721.23 |
| PUQUINA | \$780,540 | -\$1,079,955 | 1,860,495.79 |
| QUINISTAQUILLAS | \$169,995 | -\$3,741,854 | 3,911,849.79 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------------------------|-------------|---------------|---------------|
| Municipio | | | |
| YUNGA | \$41,613 | -\$1,998,268 | 2,039,880.67 |
| EL ALGARROBAL | \$884,389 | -\$1,108,617 | 1,993,005.37 |
| HUACHON | \$143,674 | -\$1,917,163 | 2,060,836.73 |
| HUARIACA | \$91,729 | -\$829,587 | 921,315.91 |
| HUAYLLAY | \$82,480 | -\$1,365,076 | 1,447,555.07 |
| NINACACA | \$192,096 | -\$887,437 | 1,079,533.09 |
| PALLANCHACRA | \$181,407 | -\$383,656 | 565,062.52 |
| PAUCARTAMBO | \$689,753 | -\$959,768 | 1,649,521.05 |
| SAN FRANCISCO DE ASIS DE YARUSYACAN | \$233,476 | -\$155,211 | 388,686.41 |
| SIMON BOLIVAR | \$3,293 | -\$1,086,095 | 1,089,387.67 |
| TICLACAYAN | \$340,029 | -\$1,164,668 | 1,504,696.39 |
| TINYAHUARCO | \$88,016 | -\$194,939 | 282,954.69 |
| VICCO | \$54,582 | -\$359,841 | 414,422.94 |
| YANACANCHA | \$185,924 | -\$114,727 | 300,651.05 |
| YANAHUANCA | \$210,861 | -\$1,069,606 | 1,280,466.77 |
| CHACAYAN | \$83,481 | -\$505,816 | 589,296.71 |
| PAUCAR | \$215,148 | -\$473,073 | 688,220.28 |
| SAN PEDRO DE PILLAO | \$77,967 | -\$1,717,719 | 1,795,685.85 |
| SANTA ANA DE TUSI | \$461,005 | -\$260,718 | 721,722.59 |
| TAPUC | \$21,568 | -\$646,089 | 667,657.60 |
| VILCABAMBA | \$124,209 | -\$476,321 | 600,530.28 |
| OXAPAMPA | \$218,656 | -\$3,291,649 | 3,510,305.81 |
| CHONTABAMBA | \$432,255 | -\$3,864,010 | 4,296,264.99 |
| HUANCABAMBA | \$463,161 | -\$2,728,401 | 3,191,561.91 |
| PALCAZU | \$590,198 | -\$6,897,225 | 7,487,423.23 |
| POZUZO | \$1,290,325 | -\$3,306,330 | 4,596,654.67 |
| PUERTO BERMUDEZ | \$327,291 | -\$12,244,909 | 12,572,200.03 |
| VILLA RICA | \$282,246 | -\$2,866,172 | 3,148,417.69 |
| CONSTITUCION | \$264,074 | -\$13,239,371 | 13,503,445.63 |
| PIURA | \$331,901 | \$112,134 | 219,766.83 |
| CATACAOS | \$9,597 | -\$3,516,232 | 3,525,829.53 |
| CURA MORI | \$15,183 | -\$989,638 | 1,004,820.47 |
| EL TALLAN | \$38,571 | -\$477,850 | 516,421.66 |
| LA ARENA | \$52,207 | -\$897,150 | 949,357.47 |
| LA UNION | \$82,281 | -\$1,435,346 | 1,517,627.15 |
| LAS LOMAS | \$370,191 | -\$790,376 | 1,160,566.79 |
| TAMBO GRANDE | \$1,503,650 | \$827,416 | 676,233.68 |
| AYABACA | \$504,255 | -\$1,719,187 | 2,223,442.11 |
| FRIAS | \$301,640 | -\$2,624,887 | 2,926,526.47 |
| JILILI | \$55,509 | -\$2,678,948 | 2,734,457.25 |
| LAGUNAS | \$159,863 | -\$1,985,529 | 2,145,392.09 |
| MONTERO | \$112,124 | -\$1,172,511 | 1,284,635.19 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------------|-------------|--------------|--------------|
| Municipio | | | |
| PACAIPAMPA | \$466,656 | -\$2,074,887 | 2,541,542.95 |
| PAIMAS | \$369,476 | -\$863,980 | 1,233,456.79 |
| SAPILLICA | \$209,324 | -\$3,994,096 | 4,203,420.15 |
| SICCHEZ | \$61,394 | -\$1,477,624 | 1,539,018.33 |
| SUYO | \$137,046 | -\$1,623,141 | 1,760,187.31 |
| HUANCABAMBA | \$444,787 | -\$1,866,230 | 2,311,017.41 |
| CANCHAQUE | \$156,860 | -\$3,197,832 | 3,354,691.95 |
| EL CARMEN DE LA FRONTERA | \$343,096 | -\$3,857,803 | 4,200,898.23 |
| HUARMACA | \$837,820 | -\$1,654,102 | 2,491,921.51 |
| LALAQUIZ | \$141,538 | -\$4,677,205 | 4,818,742.73 |
| SAN MIGUEL DE EL FAIQUE | \$551,571 | -\$954,453 | 1,506,023.95 |
| SONDOR | \$187,768 | -\$3,321,601 | 3,509,368.97 |
| SONDORILLO | \$261,627 | -\$1,474,224 | 1,735,850.93 |
| CHULUCANAS | \$265,244 | -\$637,072 | 902,316.41 |
| BUENOS AIRES | \$76,206 | -\$1,187,405 | 1,263,611.05 |
| CHALACO | \$263,420 | -\$1,899,553 | 2,162,973.01 |
| LA MATANZA | \$57,646 | -\$1,273,641 | 1,331,287.01 |
| MORROPON | \$99,094 | -\$733,191 | 832,285.03 |
| SALITRAL | \$3,556,256 | \$1,513,547 | 2,042,708.95 |
| SAN JUAN DE BIGOTE | \$176,437 | -\$1,794,060 | 1,970,497.53 |
| SANTA CATALINA DE MOSSA | \$223,589 | -\$1,182,196 | 1,405,785.03 |
| SANTO DOMINGO | \$249,259 | -\$1,417,232 | 1,666,490.73 |
| YAMANGO | \$314,532 | -\$3,163,097 | 3,477,628.89 |
| ARENAL | \$7,618 | -\$343,380 | 350,998.21 |
| COLAN | \$22,200 | -\$387,943 | 410,142.19 |
| LA HUACA | \$71,789 | -\$1,167,842 | 1,239,631.35 |
| VICHAYAL | \$59,823 | -\$386,247 | 446,069.71 |
| SULLANA | \$1,924,804 | \$1,381,051 | 543,753.26 |
| IGNACIO ESCUDERO | \$90,404 | -\$490,044 | 580,447.71 |
| LANCONES | \$793,295 | -\$1,629,518 | 2,422,812.91 |
| MARCAVELICA | \$397,836 | -\$1,046,983 | 1,444,819.29 |
| MIGUEL CHECA | \$5,483 | -\$900,271 | 905,753.71 |
| QUERECOTILLO | \$1,510,388 | \$1,000,389 | 509,999.05 |
| SALITRAL | \$46,061 | -\$198,393 | 244,453.60 |
| PARIÑAS | \$63,765 | -\$1,357,270 | 1,421,034.95 |
| LA BREA | \$30,592 | -\$672,018 | 702,609.65 |
| SECHURA | \$216,640 | -\$2,468,154 | 2,684,793.63 |
| BELLAVISTA DE LA UNION | \$178,090 | -\$250,008 | 428,098.07 |
| BERNAL | \$325,358 | -\$210,761 | 536,118.38 |
| CRISTO NOS VALGA | \$297,963 | -\$522,761 | 820,724.01 |
| VICE | \$176,726 | -\$728,474 | 905,200.19 |
| PUNO | \$142,009 | -\$403,358 | 545,366.83 |
| ACORA | \$871,755 | -\$862,561 | 1,734,316.17 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------------|-----------|---------------|---------------|
| Municipio | | | |
| AMANTANI | \$73,774 | -\$1,122,618 | 1,196,392.41 |
| ATUNCOLLA | \$235,047 | -\$168,187 | 403,233.92 |
| CAPACHICA | \$295,339 | -\$359,077 | 654,416.19 |
| CHUCUITO | \$141,048 | -\$298,780 | 439,827.66 |
| COATA | \$278,714 | -\$155,292 | 434,005.64 |
| HUATA | \$66,144 | -\$338,352 | 404,496.06 |
| MAÑAZO | \$71,409 | -\$1,307,989 | 1,379,398.11 |
| PAUCARCOLLA | \$145,056 | -\$97,441 | 242,496.89 |
| PICHACANI | \$136,686 | -\$1,135,198 | 1,271,883.51 |
| PLATERIA | \$272,543 | -\$220,387 | 492,929.17 |
| SAN ANTONIO | \$54,293 | -\$2,144,446 | 2,198,739.43 |
| TIQUILLACA | \$59,499 | -\$1,476,643 | 1,536,141.95 |
| VILQUE | \$53,189 | -\$676,921 | 730,109.24 |
| AZANGARO | \$375,927 | -\$491,402 | 867,329.21 |
| ACHAYA | \$166,779 | -\$335,411 | 502,189.90 |
| ARAPA | \$284,901 | -\$549,226 | 834,126.89 |
| ASILLO | \$402,122 | -\$632,002 | 1,034,124.47 |
| CAMINACA | \$200,553 | -\$148,574 | 349,126.90 |
| CHUPA | \$311,404 | -\$460,498 | 771,902.51 |
| JOSE DOMINGO CHOQUEHUANCA | \$43,650 | -\$560,743 | 604,392.19 |
| MUÑANI | \$78,707 | -\$2,032,998 | 2,111,704.33 |
| POTONI | \$145,592 | -\$1,402,104 | 1,547,695.57 |
| SAMAN | \$332,126 | -\$20,457 | 352,582.47 |
| SAN ANTON | \$117,609 | -\$1,522,060 | 1,639,668.69 |
| SAN JOSE | \$79,445 | -\$1,116,921 | 1,196,366.51 |
| SAN JUAN DE SALINAS | \$93,534 | -\$634,488 | 728,021.47 |
| SANTIAGO DE PUPUJA | \$270,166 | -\$406,392 | 676,557.95 |
| TIRAPATA | \$71,960 | -\$771,567 | 843,527.11 |
| MACUSANI | \$84,129 | -\$2,850,626 | 2,934,755.27 |
| AJOYANI | \$79,121 | -\$1,637,330 | 1,716,451.83 |
| AYAPATA | \$220,118 | -\$7,118,204 | 7,338,322.11 |
| COASA | \$130,192 | -\$16,363,763 | 16,493,955.83 |
| CORANI | \$185,933 | -\$4,277,107 | 4,463,040.27 |
| CRUCERO | \$209,750 | -\$1,443,048 | 1,652,797.77 |
| ITUATA | \$163,658 | -\$6,505,258 | 6,668,915.89 |
| OLLACHEA | \$148,498 | -\$4,637,296 | 4,785,794.23 |
| SAN GABAN | \$86,593 | -\$5,768,455 | 5,855,048.35 |
| USICAYOS | \$336,884 | -\$2,620,329 | 2,957,212.79 |
| JULI | \$573,671 | -\$279,831 | 853,501.57 |
| DESAGUADERO | \$216,708 | -\$573,266 | 789,974.05 |
| HUACULLANI | \$491,178 | -\$1,030,165 | 1,521,343.43 |
| KELLUYO | \$523,084 | -\$1,173,642 | 1,696,726.39 |
| PISACOMA | \$269,829 | -\$1,712,308 | 1,982,136.99 |

| País: Perú | VIPN | Beneficio | Costo |
|-------------------|-------------|--------------|--------------|
| Municipio | | | |
| POMATA | \$646,403 | -\$604,514 | 1,250,917.09 |
| ZEPITA | \$685,304 | -\$199,192 | 884,496.47 |
| ILAVE | \$1,580,164 | \$670,049 | 910,115.27 |
| CAPAZO | \$86,014 | -\$1,334,422 | 1,420,436.29 |
| PILCUYO | \$680,128 | \$378,134 | 301,994.67 |
| SANTA ROSA | \$349,042 | -\$1,440,946 | 1,789,987.85 |
| CONDURIRI | \$232,331 | -\$1,266,760 | 1,499,090.89 |
| HUANCANE | \$571,837 | -\$73,969 | 645,806.22 |
| COJATA | \$261,932 | -\$2,405,378 | 2,667,310.39 |
| HUATASANI | \$140,997 | -\$827,180 | 968,177.15 |
| INCHUPALLA | \$183,775 | -\$1,827,582 | 2,011,356.63 |
| PUSI | \$242,195 | -\$106,102 | 348,297.13 |
| ROSASPATA | \$203,279 | -\$1,571,484 | 1,774,762.35 |
| TARACO | \$957,191 | \$541,910 | 415,281.12 |
| VILQUE CHICO | \$479,662 | -\$464,210 | 943,872.59 |
| LAMPA | \$512,314 | -\$605,318 | 1,117,631.99 |
| CABANILLA | \$827,715 | -\$774,885 | 1,602,599.87 |
| CALAPUJA | \$78,673 | -\$385,309 | 463,981.85 |
| NICASIO | \$252,292 | -\$308,744 | 561,036.33 |
| OCUVIRI | \$102,785 | -\$2,156,441 | 2,259,226.29 |
| PALCA | \$149,852 | -\$1,722,251 | 1,872,102.69 |
| PARATIA | \$367,898 | -\$2,629,352 | 2,997,250.49 |
| PUCARA | \$827,659 | -\$937,688 | 1,765,347.33 |
| SANTA LUCIA | \$308,801 | -\$1,641,156 | 1,949,956.61 |
| VILAVILA | \$186,803 | -\$1,392,300 | 1,579,102.65 |
| AYAVIRI | \$721,361 | -\$1,242,751 | 1,964,112.07 |
| ANTAUTA | \$142,514 | -\$2,081,058 | 2,223,571.61 |
| CUPI | \$334,299 | -\$1,541,570 | 1,875,868.55 |
| LLALLI | \$285,252 | -\$1,136,626 | 1,421,877.81 |
| MACARI | \$458,877 | -\$1,331,792 | 1,790,669.39 |
| NUÑO A | \$396,339 | -\$3,258,573 | 3,654,912.17 |
| ORURILLO | \$718,894 | -\$785,652 | 1,504,546.17 |
| SANTA ROSA | \$310,755 | -\$1,692,657 | 2,003,411.99 |
| UMACHIRI | \$570,862 | -\$863,199 | 1,434,061.17 |
| MOHO | \$897,583 | -\$95,501 | 993,084.07 |
| CONIMA | \$167,232 | -\$753,963 | 921,195.29 |
| HUAYRAPATA | \$253,648 | -\$1,923,382 | 2,177,030.05 |
| TILALI | \$279,632 | -\$888,817 | 1,168,449.27 |
| PUTINA | \$528,013 | -\$872,836 | 1,400,849.23 |
| ANANEA | \$16,948 | -\$1,814,005 | 1,830,953.51 |
| PEDRO VILCA APAZA | \$245,144 | -\$899,267 | 1,144,411.11 |
| QUILCAPUNCU | \$367,289 | -\$1,529,344 | 1,896,632.21 |
| SINA | \$56,609 | -\$3,473,723 | 3,530,331.69 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------------|--------------|---------------|---------------|
| Municipio | | | |
| JULIACA | \$681,921 | \$379,529 | 302,392.86 |
| CABANA | \$505,021 | \$17,979 | 487,041.81 |
| CABANILLAS | \$482,041 | -\$1,115,920 | 1,597,961.55 |
| CARACOTO | \$661,123 | \$418,412 | 242,710.83 |
| SANDIA | \$111,144 | -\$3,169,786 | 3,280,930.23 |
| CUYOCUYO | \$159,398 | -\$1,747,857 | 1,907,254.91 |
| LIMBANI | \$138,550 | -\$17,509,273 | 17,647,823.03 |
| PATAMBUCO | \$135,710 | -\$2,415,661 | 2,551,370.89 |
| PHARA | \$61,179 | -\$7,724,842 | 7,786,020.63 |
| QUIACA | \$21,463 | -\$4,711,118 | 4,732,580.83 |
| SAN JUAN DEL ORO | \$122,818 | -\$4,784,820 | 4,907,637.45 |
| YANAHUAYA | \$36,805 | -\$8,561,092 | 8,597,896.83 |
| ALTO INAMBARI | \$92,957 | -\$6,283,270 | 6,376,226.65 |
| SAN PEDRO DE PUTINA PUNCO | \$431,108 | -\$21,732,387 | 22,163,495.43 |
| YUNGUYO | \$672,503 | -\$154,878 | 827,381.05 |
| ANAPIA | \$54,243 | -\$1,769,996 | 1,824,238.75 |
| COPANI | \$222,693 | -\$673,074 | 895,767.41 |
| CUTURAPI | \$47,668 | -\$659,045 | 706,713.10 |
| OLLARAYA | \$177,436 | -\$892,925 | 1,070,360.79 |
| TINICACHI | \$13,844 | -\$1,143,081 | 1,156,925.25 |
| UNICACHI | \$83,437 | -\$1,074,585 | 1,158,021.93 |
| MOYOBAMBA | \$3,935,063 | -\$2,563,204 | 6,498,266.71 |
| CALZADA | \$159,251 | -\$125,547 | 284,797.96 |
| HABANA | \$2,008,200 | \$1,815,621 | 192,579.16 |
| JEPELACIO | \$2,073,628 | \$1,317,170 | 756,457.97 |
| SORITOR | \$1,321,975 | -\$3,136,720 | 4,458,694.25 |
| YANTALO | \$160,052 | -\$519,092 | 679,144.18 |
| BELLAVISTA | \$715,797 | -\$219,356 | 935,153.17 |
| ALTO BIAVO | \$526,509 | -\$16,148,317 | 16,674,826.63 |
| BAJO BIAVO | \$10,246,898 | \$7,473,079 | 2,773,819.33 |
| HUALLAGA | \$613,617 | -\$2,064,262 | 2,677,878.33 |
| SAN PABLO | \$751,615 | -\$548,437 | 1,300,052.35 |
| SAN RAFAEL | \$58,234 | -\$691,417 | 749,651.45 |
| SAN JOSE DE SISA | \$432,576 | -\$1,229,198 | 1,661,773.97 |
| AGUA BLANCA | \$380,225 | -\$1,366,234 | 1,746,458.83 |
| SAN MARTIN | \$1,024,232 | -\$1,407,192 | 2,431,424.29 |
| SANTA ROSA | \$854,784 | -\$369,696 | 1,224,479.85 |
| SHATOJA | \$250,839 | -\$1,093,382 | 1,344,220.73 |
| SAPOSOA | \$661,451 | -\$6,479,308 | 7,140,759.87 |
| ALTO SAPOSOA | \$647,420 | -\$5,744,812 | 6,392,231.37 |
| EL ESLABON | \$191,271 | -\$1,500,635 | 1,691,906.77 |
| PISCOYACU | \$422,914 | -\$3,799,448 | 4,222,361.19 |
| SACANCHE | \$314,796 | -\$1,824,461 | 2,139,256.75 |

| País: Perú | VIPN | Beneficio | Costo |
|----------------------|-------------|---------------|---------------|
| Municipio | | | |
| TINGO DE SAPOSOA | \$57,417 | -\$837,266 | 894,682.57 |
| LAMAS | \$119,052 | -\$340,484 | 459,536.01 |
| ALONSO DE ALVARADO | \$713,844 | -\$1,335,902 | 2,049,746.35 |
| BARRANQUITA | \$309,024 | -\$3,954,839 | 4,263,862.61 |
| CAYNARACHI | \$329,042 | -\$2,832,813 | 3,161,855.35 |
| CUÑUMBUQUI | \$117,898 | -\$681,440 | 799,338.01 |
| PINTO RECODO | \$357,129 | -\$3,965,147 | 4,322,275.99 |
| RUMISAPA | \$34,022 | -\$161,473 | 195,494.76 |
| SAN ROQUE DE CUMBAZA | \$59,720 | -\$9,016,690 | 9,076,410.43 |
| SHANAO | \$75,839 | -\$164,123 | 239,962.02 |
| TABALOSOS | \$242,384 | -\$1,560,856 | 1,803,239.03 |
| ZAPATERO | \$247,097 | -\$410,637 | 657,733.83 |
| JUANJUI | \$213,763 | -\$2,376,366 | 2,590,129.13 |
| CAMPANILLA | \$570,687 | -\$7,761,750 | 8,332,436.63 |
| HUICUNGO | \$549,461 | -\$16,585,423 | 17,134,884.63 |
| PACHIZA | \$1,127,507 | -\$17,072,962 | 18,200,469.83 |
| PAJARILLO | \$1,061,890 | -\$792,019 | 1,853,909.05 |
| PICOTA | \$48,736 | -\$1,004,685 | 1,053,420.71 |
| BUENOS AIRES | \$433,525 | -\$523,079 | 956,603.55 |
| CASPISAPA | \$276,835 | -\$770,997 | 1,047,831.49 |
| PILLUANA | \$47,643 | -\$880,004 | 927,647.35 |
| PUCACACA | \$573,366 | -\$512,604 | 1,085,969.61 |
| SAN CRISTOBAL | \$4,083 | -\$1,082,850 | 1,086,933.83 |
| SAN HILARION | \$265,862 | -\$1,512,466 | 1,778,328.41 |
| SHAMBOYACU | \$684,444 | -\$4,236,296 | 4,920,739.89 |
| TINGO DE PONASA | \$253,783 | -\$1,803,445 | 2,057,227.75 |
| TRES UNIDOS | \$266,689 | -\$3,101,377 | 3,368,065.97 |
| RIOJA | \$134,471 | -\$983,445 | 1,117,916.15 |
| AWAJUN | \$817,463 | -\$4,915,775 | 5,733,238.43 |
| ELIAS SOPLIN VARGAS | \$148,089 | -\$3,952,425 | 4,100,514.27 |
| NUEVA CAJAMARCA | \$478,775 | -\$3,709,435 | 4,188,210.93 |
| PARDO MIGUEL | \$653,606 | -\$7,242,393 | 7,895,999.43 |
| POSIC | \$124,671 | -\$402,170 | 526,841.60 |
| SAN FERNANDO | \$773,963 | -\$53,952 | 827,914.59 |
| YORONGOS | \$34,633 | -\$2,319,808 | 2,354,440.61 |
| YURACYACU | \$318,681 | -\$254,701 | 573,382.64 |
| TARAPOTO | \$34,580 | -\$197,698 | 232,277.86 |
| ALBERTO LEVEAU | \$125,050 | -\$531,142 | 656,192.19 |
| CACATACHI | \$9,021 | -\$134,661 | 143,682.47 |
| CHAZUTA | \$539,458 | -\$5,060,418 | 5,599,875.63 |
| CHIPURANA | \$134,595 | -\$9,028,203 | 9,162,798.03 |
| EL PORVENIR | \$948,975 | -\$2,457,360 | 3,406,334.33 |
| HUIMBAYOC | \$418,606 | -\$14,719,011 | 15,137,617.23 |

| País: Perú | VIPN | Beneficio | Costo |
|--------------------------------------|-------------|--------------|---------------|
| Municipio | | | |
| LA BANDA DE SHILCAYO | \$435,125 | -\$1,210,208 | 1,645,333.39 |
| MORALES | \$103,452 | -\$18,296 | 121,747.69 |
| PAPAPLAYA | \$146,912 | -\$8,116,712 | 8,263,624.03 |
| SAN ANTONIO | \$64,326 | -\$1,589,328 | 1,653,653.95 |
| SAUCE | \$461,083 | -\$343,569 | 804,651.95 |
| SHAPAJA | \$321,962 | -\$928,124 | 1,250,086.07 |
| TOCACHE | \$1,370,464 | -\$2,604,707 | 3,975,171.59 |
| NUEVO PROGRESO | \$1,083,844 | -\$1,585,763 | 2,669,606.61 |
| POLVORA | \$1,603,034 | -\$9,294,487 | 10,897,520.83 |
| SHUNTE | \$52,658 | -\$8,249,003 | 8,301,660.03 |
| UCHIZA | \$1,325,424 | -\$2,005,927 | 3,331,350.87 |
| TACNA | \$2,727,043 | -\$641,815 | 3,368,858.51 |
| CALANA | \$368,616 | \$58,488 | 310,128.01 |
| CIUDAD NUEVA | \$12,524 | -\$813,479 | 826,003.17 |
| INCLAN | \$791,520 | -\$1,424,559 | 2,216,079.11 |
| PACHIA | \$221,301 | -\$1,051,947 | 1,273,248.07 |
| PALCA | \$192,439 | -\$1,324,674 | 1,517,113.59 |
| POCOLLAY | \$3,961 | -\$2,424,373 | 2,428,334.05 |
| SAMA | \$268,987 | -\$738,354 | 1,007,340.91 |
| CORONEL GREGORIO ALBARRACIN LANCHIPA | \$128,881 | -\$215,653 | 344,534.16 |
| CANDARAVE | \$774,911 | -\$1,420,964 | 2,195,874.89 |
| CAIRANI | \$447,439 | -\$1,014,234 | 1,461,672.79 |
| CAMILACA | \$189,318 | -\$2,029,599 | 2,218,917.01 |
| CURIBAYA | \$64,063 | -\$1,398,161 | 1,462,224.09 |
| HUANUARA | \$225,269 | -\$951,950 | 1,177,219.75 |
| QUILAHUANI | \$203,345 | -\$935,621 | 1,138,965.45 |
| LOCUMBA | \$397,293 | -\$801,989 | 1,199,282.11 |
| ILABAYA | \$289,322 | -\$1,727,603 | 2,016,925.13 |
| ITE | \$1,453,855 | -\$166,948 | 1,620,803.13 |
| TARATA | \$24,149 | -\$1,501,541 | 1,525,690.19 |
| HEROES ALBARRACIN | \$170,819 | -\$2,305,038 | 2,475,856.11 |
| ESTIQUE | \$120,246 | -\$1,258,106 | 1,378,351.75 |
| ESTIQUE-PAMPA | \$10,908 | -\$2,079,345 | 2,090,252.47 |
| SITAJARA | \$192,834 | -\$1,228,460 | 1,421,293.95 |
| SUSAPAYA | \$244,733 | -\$1,449,544 | 1,694,276.99 |
| TARUCACHI | \$103,267 | -\$2,026,474 | 2,129,741.09 |
| TICACO | \$259,710 | -\$1,232,655 | 1,492,364.29 |
| TUMBES | \$47,490 | -\$151,084 | 198,573.82 |
| CORRALES | \$34,016 | -\$208,902 | 242,917.88 |
| PAMPAS DE HOSPITAL | \$543,352 | -\$1,424,822 | 1,968,174.67 |
| SAN JACINTO | \$2,335,732 | \$1,085,066 | 1,250,666.23 |
| SAN JUAN DE LA VIRGEN | \$258,322 | \$37,794 | 220,528.36 |

| País: Perú | VIPN | Beneficio | Costo |
|---------------------|-------------|---------------|---------------|
| Municipio | | | |
| ZORRITOS | \$24,352 | -\$888,783 | 913,135.21 |
| CASITAS | \$796,379 | -\$535,729 | 1,332,107.67 |
| CANOAS DE PUNTA SAL | \$100,704 | -\$955,454 | 1,056,157.97 |
| AGUAS VERDES | \$652,874 | \$549,581 | 103,293.42 |
| MATAPALO | \$2,529,260 | \$1,084,478 | 1,444,782.29 |
| PAPAYAL | \$667,553 | \$432,387 | 235,166.23 |
| CALLERIA | \$185,708 | -\$16,173,368 | 16,359,076.03 |
| CAMPOVERDE | \$584,836 | -\$303,041 | 887,877.53 |
| IPARIA | \$355,733 | -\$16,553,880 | 16,909,613.83 |
| MASISEA | \$157,329 | -\$22,110,277 | 22,267,606.03 |
| YARINACOCHA | \$161,531 | -\$927,165 | 1,088,695.77 |
| NUEVA REQUENA | \$309,525 | -\$7,383,278 | 7,692,802.83 |
| MANANTAY | \$53,130 | -\$1,903,699 | 1,956,828.25 |
| RAYMONDI | \$715,407 | -\$17,652,191 | 18,367,598.83 |
| SEPAHUA | \$244,035 | -\$20,583,465 | 20,827,499.43 |
| TAHUANIA | \$334,643 | -\$16,276,433 | 16,611,075.63 |
| YURUA | \$43,865 | -\$24,076,102 | 24,119,966.63 |
| PADRE ABAD | \$1,203,101 | -\$6,170,651 | 7,373,751.83 |
| IRAZOLA | \$7,599,803 | \$3,146,195 | 4,453,608.23 |
| CURIMANA | \$510,962 | -\$5,353,663 | 5,864,625.43 |
| PURUS | \$1,176,722 | -\$30,023,809 | 31,200,530.83 |

ANEXO 4

RIEGO

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|-----------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Acasio | \$1,460,228.34 | \$319,031.18 | -\$1,141,197.16 |
| Achacachi | \$5,607,702.67 | \$1,331,686.86 | -\$4,276,015.81 |
| Achocalla | \$2,190,772.16 | \$528,149.84 | -\$1,662,622.32 |
| Aiquile | \$9,287,124.19 | \$1,098,345.67 | -\$8,188,778.52 |
| Alalay | \$1,509,325.76 | \$318,359.72 | -\$1,190,966.04 |
| Alto Beni | \$13,485,252.78 | \$1,683,432.87 | -\$11,801,819.92 |
| Ancoraimes | \$1,766,062.77 | \$346,815.45 | -\$1,419,247.32 |
| Antequera | \$578,140.36 | \$34,551.75 | -\$543,588.62 |
| Anzaldo | \$3,922,439.76 | \$178,062.98 | -\$3,744,376.77 |
| Apolo | \$5,126,150.70 | \$913,133.13 | -\$4,213,017.57 |
| Arampampa | \$1,520,503.66 | \$165,060.57 | -\$1,355,443.10 |
| Arani | \$980,069.02 | \$120,997.52 | -\$859,071.50 |
| Arbieto | \$1,156,968.79 | \$54,734.41 | -\$1,102,234.38 |
| Arque | \$2,166,610.54 | \$322,589.10 | -\$1,844,021.45 |
| Ascensión de Guarayos | \$37,353,224.88 | \$11,184,725.02 | -\$26,168,499.86 |
| Atocha | \$167,760.06 | \$38,669.53 | -\$129,090.52 |
| Aucapata | \$515,291.56 | \$115,252.95 | -\$400,038.61 |
| Ayata | \$7,137,945.07 | \$368,283.89 | -\$6,769,661.18 |
| Ayo Ayo | \$8,261,228.79 | \$1,001,839.49 | -\$7,259,389.31 |
| Azurduy | \$5,773,568.75 | \$616,705.01 | -\$5,156,863.74 |
| Batallas | \$4,440,347.90 | \$820,702.79 | -\$3,619,645.11 |
| Baures | \$2,477,437.53 | \$3,015,633.72 | \$538,196.18 |
| Belén de Andamarca | \$615,166.61 | \$60,307.55 | -\$554,859.06 |
| Bella Flor | \$1,841,647.74 | \$922,185.63 | -\$919,462.11 |
| Bermejo | \$1,584,757.17 | \$128,025.82 | -\$1,456,731.36 |
| Betanzos | \$12,666,207.52 | \$782,125.84 | -\$11,884,081.68 |
| Bolívar | \$2,505,608.08 | \$355,427.11 | -\$2,150,180.96 |
| Bolpebra | \$1,208,844.01 | \$340,087.14 | -\$868,756.87 |
| Boyube | \$576,198.49 | \$152,587.27 | -\$423,611.22 |
| Buena Vista | \$5,787,511.29 | \$2,136,195.28 | -\$3,651,316.01 |
| Cabezas | \$88,269,041.75 | \$18,302,407.97 | -\$69,966,633.78 |
| Cairoma | \$249,914.75 | \$14,199.41 | -\$235,715.34 |
| Caiza "D" | \$518,502.11 | \$16,003.51 | -\$502,498.61 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|----------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Cajuata | \$1,517,105.29 | \$275,050.08 | -\$1,242,055.21 |
| Calacoto | \$4,963,007.12 | \$699,127.73 | -\$4,263,879.39 |
| Calamarca | \$5,509,358.03 | \$1,016,375.56 | -\$4,492,982.47 |
| Callapa | \$2,680,730.18 | \$285,144.98 | -\$2,395,585.20 |
| Camargo | \$1,072,994.34 | \$64,607.21 | -\$1,008,387.13 |
| Camiri | \$3,306,608.29 | \$475,335.41 | -\$2,831,272.88 |
| Capinota | \$1,984,280.48 | \$129,060.29 | -\$1,855,220.19 |
| Caquiaviri | \$4,472,186.29 | \$649,766.19 | -\$3,822,420.10 |
| Caracollo | \$17,525,854.66 | \$949,537.15 | -\$16,576,317.51 |
| Caranavi | \$31,122,572.91 | \$6,251,484.14 | -\$24,871,088.77 |
| Carangas | \$138,317.91 | \$7,340.44 | -\$130,977.46 |
| Caraparí | \$10,028,113.47 | \$2,226,264.55 | -\$7,801,848.92 |
| Caripuyo | \$3,129,027.42 | \$320,189.04 | -\$2,808,838.38 |
| Carmen Rivero Tórrez | \$1,226,216.06 | \$1,686,130.28 | \$459,914.22 |
| Catacora | \$24.08 | \$1,368.77 | \$1,344.69 |
| Chacarilla | \$3,937,300.20 | \$143,493.47 | -\$3,793,806.73 |
| Challapata | \$11,409,655.99 | \$555,748.88 | -\$10,853,907.11 |
| Chaquí | \$1,475,317.74 | \$62,626.68 | -\$1,412,691.06 |
| Charagua | \$37,014,104.79 | \$27,767,698.09 | -\$9,246,406.71 |
| Charaña | \$71,979.24 | \$50,540.59 | -\$21,438.65 |
| Charazani | \$1,965,286.45 | \$506,221.83 | -\$1,459,064.62 |
| Chayanta | \$5,433,731.91 | \$246,416.06 | -\$5,187,315.85 |
| Chimoré | \$10,377,633.04 | \$3,929,508.15 | -\$6,448,124.90 |
| Chipaya | \$114,561.45 | \$14,236.92 | -\$100,324.54 |
| Choque Cota | \$660,855.27 | \$51,113.63 | -\$609,741.64 |
| Chua Cocani | \$196,496.14 | \$53,149.84 | -\$143,346.30 |
| Chulumani | \$3,541,752.66 | \$1,544,258.94 | -\$1,997,493.72 |
| Chuma | \$2,375,086.82 | \$226,804.22 | -\$2,148,282.60 |
| Chuquihuta | \$391,116.77 | \$66,282.73 | -\$324,834.04 |
| Ckochas | \$8,084,131.19 | \$526,946.16 | -\$7,557,185.03 |
| Cliza | \$573,532.50 | \$46,620.18 | -\$526,912.33 |
| Cobija | \$606,569.55 | \$766,723.75 | \$160,154.20 |
| Cocapata | \$3,153,385.78 | \$1,291,427.90 | -\$1,861,957.88 |
| Cochabamba | \$287,007.94 | \$28,821.63 | -\$258,186.30 |
| Coipasa | \$1,129,917.23 | \$252,330.17 | -\$877,587.06 |
| Colcapirhua | \$7,819.08 | \$2,931.17 | -\$4,887.90 |
| Colcha "K" | \$8,007,276.58 | \$715,434.12 | -\$7,291,842.46 |
| Collana | \$619,752.81 | \$286,680.95 | -\$333,071.86 |
| Colomi | \$3,183,954.58 | \$2,071,792.86 | -\$1,112,161.72 |
| Colpa Bélgica | \$228,374.50 | \$488,596.93 | \$260,222.43 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|-----------------------|------------------|------------------|-------------------|
| Municipios | | | |
| Colquechaca | \$15,251,555.63 | \$756,095.13 | -\$14,495,460.50 |
| Colquencha | \$1,891,593.00 | \$555,399.22 | -\$1,336,193.78 |
| Colquiri | \$2,019,548.66 | \$340,780.31 | -\$1,678,768.34 |
| Comanche | \$1,977,406.75 | \$289,727.36 | -\$1,687,679.39 |
| Comarapa | \$3,592,408.85 | \$640,660.97 | -\$2,951,747.87 |
| Combaya | \$348,044.66 | \$9,648.29 | -\$338,396.37 |
| Concepción | \$7,800,494.66 | \$4,620,651.37 | -\$3,179,843.28 |
| Copacabana | \$569,644.38 | \$168,775.29 | -\$400,869.08 |
| Coripata | \$2,571,592.41 | \$1,186,956.52 | -\$1,384,635.89 |
| Corocoro | \$4,403,817.02 | \$572,880.48 | -\$3,830,936.54 |
| Coroico | \$4,283,877.24 | \$1,111,292.01 | -\$3,172,585.22 |
| Corque | \$2,576,900.82 | \$110,753.06 | -\$2,466,147.76 |
| Cotagaita | \$31,961.08 | \$32,634.82 | \$673.74 |
| Cotoca | \$16,361,425.84 | \$8,569,247.23 | -\$7,792,178.61 |
| Cruz de Machacamarca | \$251,621.92 | \$6,301.06 | -\$245,320.86 |
| Cuatro Cañadas | \$257,942,710.57 | \$55,663,901.82 | -\$202,278,808.75 |
| Cuchumuela | \$329,211.09 | \$44,197.98 | -\$285,013.11 |
| Cuevo | \$2,426,444.67 | \$281,699.91 | -\$2,144,744.75 |
| Culpina | \$5,966,600.87 | \$896,633.03 | -\$5,069,967.84 |
| Curahuara de Carangas | \$1,269,418.28 | \$83,462.39 | -\$1,185,955.90 |
| Curva | \$261,528.15 | \$82,721.70 | -\$178,806.45 |
| Desaguadero | \$726,783.07 | \$111,491.16 | -\$615,291.90 |
| El Alto | \$943,218.39 | \$338,442.73 | -\$604,775.66 |
| El Choro | \$1,736,618.86 | \$197,876.21 | -\$1,538,742.65 |
| El Puente | \$56,774,247.91 | \$13,457,902.77 | -\$43,316,345.14 |
| El Torno | \$12,267,412.93 | \$2,713,095.01 | -\$9,554,317.92 |
| El Villar | \$2,296,002.93 | \$567,867.43 | -\$1,728,135.49 |
| Entre Ríos | \$26,689,773.95 | \$10,818,232.07 | -\$15,871,541.88 |
| Escara | \$83,235.63 | \$2,086.25 | -\$81,149.38 |
| Escoma | \$728,351.23 | \$223,945.84 | -\$504,405.39 |
| Esmeralda | \$263,965.15 | \$4,736.71 | -\$259,228.45 |
| Eucaliptus | \$5,445,067.17 | \$324,659.13 | -\$5,120,408.04 |
| Exaltación | \$466,525.35 | \$7,214,475.52 | \$6,747,950.17 |
| Fernández Alonso | \$73,862,142.35 | \$11,517,283.19 | -\$62,344,859.16 |
| Filadelfia | \$1,881,933.82 | \$383,952.10 | -\$1,497,981.72 |
| Gral. Saavedra | \$4,847,272.84 | \$961,347.09 | -\$3,885,925.75 |
| Guanay | \$3,974,676.07 | \$980,044.07 | -\$2,994,631.99 |
| Guaqui | \$3,548,780.14 | \$335,858.60 | -\$3,212,921.54 |
| Guayaramerín | \$5,682,423.35 | \$2,397,307.14 | -\$3,285,116.21 |
| Gutiérrez | \$21,032,563.68 | \$2,903,374.79 | -\$18,129,188.89 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Huacaraje | \$505,089.42 | \$4,015,403.04 | \$3,510,313.62 |
| Huacareta | \$7,962,391.59 | \$1,873,674.48 | -\$6,088,717.11 |
| Huacaya | \$1,613,638.96 | \$419,918.01 | -\$1,193,720.95 |
| Huachacalla | \$9,793.14 | \$1,040.63 | -\$8,752.51 |
| Huanuni | \$440,666.20 | \$162,734.10 | -\$277,932.10 |
| Huari | \$7,296,343.04 | \$803,411.46 | -\$6,492,931.57 |
| Huarina | \$1,308,273.34 | \$368,684.63 | -\$939,588.71 |
| Huatajata | \$64,186.17 | \$39,202.20 | -\$24,983.97 |
| Huayllamarca | \$3,771,852.50 | \$248,550.70 | -\$3,523,301.80 |
| Humanata | \$1,364,343.93 | \$184,049.86 | -\$1,180,294.07 |
| Ichoca | \$2,167,086.90 | \$343,911.34 | -\$1,823,175.57 |
| Icla | \$2,587,661.93 | \$179,559.70 | -\$2,408,102.23 |
| Incahuasi | \$2,948,872.66 | \$374,503.39 | -\$2,574,369.27 |
| Independencia | \$5,029,761.07 | \$436,432.01 | -\$4,593,329.06 |
| Ingavi | \$188,752.90 | \$21,560.58 | -\$167,192.32 |
| Inquisivi | \$4,414,915.21 | \$928,796.33 | -\$3,486,118.87 |
| Irupana | \$2,370,830.01 | \$590,446.74 | -\$1,780,383.27 |
| Ixiamas | \$2,920,634.01 | \$758,798.02 | -\$2,161,835.99 |
| Jesús de Machaca | \$5,659,939.64 | \$559,787.17 | -\$5,100,152.47 |
| La Asunta | \$10,500,206.85 | \$2,587,300.54 | -\$7,912,906.31 |
| La Guardia | \$7,690,819.32 | \$1,475,616.21 | -\$6,215,203.11 |
| La Paz | \$1,086,529.46 | \$297,783.75 | -\$788,745.71 |
| La Rivera | \$766,292.75 | \$44,344.51 | -\$721,948.24 |
| Lagunillas | \$11,891,363.92 | \$2,511,518.50 | -\$9,379,845.42 |
| Laja | \$13,715,205.97 | \$1,558,713.96 | -\$12,156,492.01 |
| Las Carreras | \$9,487.17 | \$4,435.49 | -\$5,051.68 |
| Llallagua | \$1,877,804.24 | \$322,318.69 | -\$1,555,485.55 |
| Llica | \$8,928,784.33 | \$560,706.79 | -\$8,368,077.55 |
| Loreto | \$1,051,465.09 | \$3,241,271.87 | \$2,189,806.78 |
| Luribay | \$464,444.67 | \$90,651.83 | -\$373,792.84 |
| Machacamarca | \$953,138.52 | \$84,043.27 | -\$869,095.25 |
| Machareti | \$3,360,193.71 | \$2,935,786.97 | -\$424,406.74 |
| Magdalena | \$1,178,469.28 | \$4,804,532.54 | \$3,626,063.26 |
| Mairana | \$4,684,146.72 | \$813,387.84 | -\$3,870,758.88 |
| Malla | \$357,983.34 | \$104,054.56 | -\$253,928.78 |
| Mapiri | \$919,815.58 | \$177,837.11 | -\$741,978.47 |
| Mecapaca | \$945,300.30 | \$203,961.68 | -\$741,338.62 |
| Mineros | \$6,271,884.66 | \$1,244,981.94 | -\$5,026,902.72 |
| Mizque | \$8,617,693.19 | \$1,130,966.66 | -\$7,486,726.53 |
| Mocomoco | \$1,882,247.84 | \$382,478.57 | -\$1,499,769.27 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|---------------------|------------------|------------------|-------------------|
| Municipios | | | |
| Mojinete | \$0.00 | \$956.59 | \$956.59 |
| Mojocoya | \$4,666,824.19 | \$536,444.48 | -\$4,130,379.72 |
| Monteagudo | \$12,957,864.71 | \$3,220,357.49 | -\$9,737,507.22 |
| Montero | \$1,325,984.99 | \$916,973.63 | -\$409,011.37 |
| Moro Moro | \$3,232,888.68 | \$1,039,340.98 | -\$2,193,547.70 |
| Morochata | \$2,045,167.80 | \$174,284.63 | -\$1,870,883.17 |
| Muyupampa | \$11,546,646.97 | \$2,602,306.04 | -\$8,944,340.92 |
| Nazacara de Pacajes | \$123,473.56 | \$11,621.95 | -\$111,851.61 |
| Nueva Esperanza | \$267,734.71 | \$25,903.62 | -\$241,831.08 |
| Ocurí | \$1,304,298.54 | \$470,400.73 | -\$833,897.81 |
| Okinawa Uno | \$82,024,781.85 | \$13,020,584.78 | -\$69,004,197.07 |
| Omereque | \$332,353.69 | \$139,081.82 | -\$193,271.87 |
| Oruro | \$504,683.15 | \$31,564.03 | -\$473,119.12 |
| Padcaya | \$5,358,838.50 | \$1,194,512.01 | -\$4,164,326.50 |
| Padilla | \$6,959,774.79 | \$1,539,978.59 | -\$5,419,796.20 |
| Pailón | \$335,783,253.47 | \$43,608,852.87 | -\$292,174,400.60 |
| Palca | \$177,959.99 | \$57,166.45 | -\$120,793.54 |
| Palos Blancos | \$20,288,094.53 | \$2,710,382.56 | -\$17,577,711.97 |
| Pampa Aullagas | \$5,534,992.55 | \$645,424.18 | -\$4,889,568.37 |
| Pampa Grande | \$2,561,620.13 | \$501,426.05 | -\$2,060,194.08 |
| Papel Pampa | \$12,512,171.10 | \$535,125.97 | -\$11,977,045.13 |
| Pasorapa | \$4,724,951.46 | \$1,567,151.71 | -\$3,157,799.75 |
| Patacamaya | \$8,088,034.53 | \$463,431.02 | -\$7,624,603.50 |
| Pazña | \$3,081,449.42 | \$204,396.37 | -\$2,877,053.06 |
| Pelechuco | \$207,590.08 | \$150,351.93 | -\$57,238.15 |
| Pocoata | \$7,144,762.69 | \$437,853.69 | -\$6,706,909.00 |
| Pocona | \$2,877,429.28 | \$370,928.02 | -\$2,506,501.26 |
| Pojo | \$3,317,986.53 | \$677,442.38 | -\$2,640,544.15 |
| Poopó | \$1,569,247.74 | \$216,587.30 | -\$1,352,660.43 |
| Porco | \$46,832.18 | \$11,649.53 | -\$35,182.65 |
| Poroma | \$6,324,528.03 | \$861,044.77 | -\$5,463,483.26 |
| Porongo | \$2,870,416.07 | \$824,705.06 | -\$2,045,711.01 |
| Portachuelo | \$4,246,709.12 | \$2,734,652.01 | -\$1,512,057.11 |
| Porvenir | \$1,580,861.02 | \$1,082,386.77 | -\$498,474.25 |
| Postrer Valle | \$1,359,172.21 | \$519,478.02 | -\$839,694.19 |
| Potosí | \$1,412,638.35 | \$151,263.07 | -\$1,261,375.28 |
| Presto | \$4,135,413.66 | \$519,424.19 | -\$3,615,989.47 |
| Puerto Carabuco | \$1,501,123.50 | \$278,721.43 | -\$1,222,402.07 |
| Pucará | \$2,054,214.87 | \$440,866.89 | -\$1,613,347.98 |
| Pucarani | \$9,228,796.98 | \$1,807,459.28 | -\$7,421,337.70 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|--------------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Puerto Acosta | \$1,550,029.10 | \$226,932.75 | -\$1,323,096.35 |
| Puerto Gonzalo Moreno | \$1,569,048.35 | \$213,747.55 | -\$1,355,300.80 |
| Puerto Pérez | \$707,812.09 | \$223,507.34 | -\$484,304.75 |
| Puerto Quijarro | \$153,877.64 | \$79,388.31 | -\$74,489.33 |
| Puerto Rico | \$1,068,331.78 | \$364,437.11 | -\$703,894.67 |
| Puerto Siles | \$103,731.55 | \$901,005.48 | \$797,273.93 |
| Puerto Suárez | \$1,669,184.13 | \$1,307,100.04 | -\$362,084.09 |
| Puerto Villarroel | \$37,578,523.97 | \$13,300,549.90 | -\$24,277,974.07 |
| Puna | \$6,057,112.07 | \$355,483.58 | -\$5,701,628.49 |
| Punata | \$1,127,008.55 | \$139,998.77 | -\$987,009.79 |
| Quiabaya | \$651,148.39 | \$72,860.51 | -\$578,287.89 |
| Quillacas | \$7,623,901.54 | \$817,612.98 | -\$6,806,288.56 |
| Quillacollo | \$1,160,515.19 | \$751,952.69 | -\$408,562.49 |
| Quime | \$425,582.07 | \$204,025.40 | -\$221,556.68 |
| Quirusillas | \$1,606,119.34 | \$158,248.61 | -\$1,447,870.73 |
| Ravelo | \$7,222,203.25 | \$1,093,922.50 | -\$6,128,280.75 |
| Reyes | \$4,019,919.15 | \$1,771,166.64 | -\$2,248,752.51 |
| Riberalta | \$5,917,837.31 | \$1,546,177.64 | -\$4,371,659.68 |
| Roboré | \$1,764,813.34 | \$903,188.72 | -\$861,624.62 |
| Rurrenabaque | \$5,985,463.76 | \$1,384,940.89 | -\$4,600,522.87 |
| San Pedro De Buena Vista | \$8,641,169.59 | \$1,222,887.82 | -\$7,418,281.77 |
| Sabaya | \$1,727,322.91 | \$79,033.81 | -\$1,648,289.11 |
| Sacaba | \$6,624,953.35 | \$3,474,410.72 | -\$3,150,542.62 |
| Sacabamba | \$1,936,567.75 | \$120,103.55 | -\$1,816,464.20 |
| Saipina | \$116,992.95 | \$86,807.44 | -\$30,185.51 |
| Salinas de Garcí Mendoza | \$23,413,953.19 | \$2,679,660.19 | -\$20,734,293.00 |
| Samaipata | \$4,733,768.23 | \$1,006,352.18 | -\$3,727,416.05 |
| San Agustín | \$2,389,078.84 | \$106,945.34 | -\$2,282,133.50 |
| San Andrés | \$16,916,454.96 | \$8,455,680.11 | -\$8,460,774.85 |
| San Andrés de Machaca | \$1,962,424.83 | \$278,093.23 | -\$1,684,331.60 |
| San Antonio de Esmorúco | \$473.95 | \$135.49 | -\$338.46 |
| San Antonio de Lomerío | \$1,503,383.83 | \$457,198.14 | -\$1,046,185.69 |
| San Benito | \$774,915.02 | \$98,071.40 | -\$676,843.62 |
| San Borja | \$8,965,258.68 | \$7,253,300.05 | -\$1,711,958.64 |
| San Buenaventura | \$3,325,571.45 | \$455,210.40 | -\$2,870,361.05 |
| San Carlos | \$21,067,946.87 | \$4,615,587.13 | -\$16,452,359.73 |
| San Ignacio | \$2,004,044.31 | \$10,915,725.75 | \$8,911,681.44 |
| San Ignacio de Velasco | \$21,113,824.52 | \$14,188,550.19 | -\$6,925,274.32 |
| San Javier | \$7,937,742.50 | \$11,717,682.29 | \$3,779,939.79 |
| San Joaquín | \$322,448.29 | \$4,917,406.81 | \$4,594,958.52 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|--------------------------|------------------|------------------|-------------------|
| Municipios | | | |
| San José de Chiquitos | \$61,360,733.75 | \$7,881,337.86 | -\$53,479,395.89 |
| San Juan De Yapacaní | \$60,764,576.28 | \$9,150,050.05 | -\$51,614,526.24 |
| San Julián | \$402,333,704.33 | \$57,217,368.31 | -\$345,116,336.01 |
| San Lorenzo | \$1,799,212.73 | \$185,336.96 | -\$1,613,875.76 |
| San Lucas | \$11,803,182.41 | \$703,495.69 | -\$11,099,686.73 |
| San Matías | \$1,766,606.76 | \$6,435,161.01 | \$4,668,554.24 |
| San Miguel de Velasco | \$3,653,366.95 | \$1,966,681.50 | -\$1,686,685.44 |
| San Pablo de Lípez | \$69,680.36 | \$8,795.22 | -\$60,885.14 |
| San Pedro | \$266,195,222.61 | \$45,437,514.66 | -\$220,757,707.95 |
| San Pedro de Curahuara | \$12,266,544.70 | \$1,238,173.31 | -\$11,028,371.38 |
| San Pedro de Quemes | \$1,178,770.12 | \$93,102.05 | -\$1,085,668.07 |
| San Pedro de Tiquina | \$191,132.84 | \$65,139.26 | -\$125,993.57 |
| San Pedro de Totora | \$4,658,894.83 | \$399,874.21 | -\$4,259,020.62 |
| San Rafael | \$2,022,829.43 | \$2,185,574.01 | \$162,744.58 |
| San Ramón | \$1,668,853.54 | \$10,946,040.92 | \$9,277,187.38 |
| Santa Ana de Yacuma | \$1,811,527.34 | \$16,568,302.89 | \$14,756,775.55 |
| Santa Cruz de la Sierra | \$27,899,578.16 | \$3,803,051.21 | -\$24,096,526.96 |
| Santa Rosa | \$1,162,509.94 | \$6,169,928.38 | \$5,007,418.44 |
| Santa Rosa del Sara | \$94,332,302.87 | \$15,643,123.25 | -\$78,689,179.62 |
| Santiago de Andamarca | \$3,147,377.15 | \$411,128.83 | -\$2,736,248.32 |
| Santiago de Huata | \$1,387,540.58 | \$127,301.56 | -\$1,260,239.02 |
| Santiago de Machaca | \$771,582.51 | \$112,304.27 | -\$659,278.24 |
| Santiváñez | \$2,320,633.53 | \$227,963.68 | -\$2,092,669.85 |
| Santos Mercado | \$398,003.51 | \$44,353.70 | -\$353,649.82 |
| Sapahaqui | \$736,964.65 | \$91,408.84 | -\$645,555.82 |
| Sena | \$522,339.26 | \$90,136.33 | -\$432,202.92 |
| Shinahota | \$6,122,383.27 | \$2,710,646.54 | -\$3,411,736.72 |
| Sica Sica | \$16,842,910.90 | \$1,747,868.03 | -\$15,095,042.87 |
| Sicaya | \$328,163.29 | \$27,189.90 | -\$300,973.38 |
| Sipesipe | \$1,093,123.61 | \$68,870.04 | -\$1,024,253.57 |
| Sopachuy | \$2,204,321.58 | \$286,006.08 | -\$1,918,315.50 |
| Pari - Paria - Soracachi | \$5,191,842.44 | \$354,828.55 | -\$4,837,013.89 |
| Sorata | \$2,299,053.22 | \$339,033.10 | -\$1,960,020.11 |
| Sucre | \$6,472,950.82 | \$470,033.27 | -\$6,002,917.56 |
| Tacachi | \$116,380.73 | \$4,220.00 | -\$112,160.73 |
| Tacacoma | \$797,659.42 | \$155,385.22 | -\$642,274.19 |
| Tacobamba | \$4,624,663.14 | \$253,339.56 | -\$4,371,323.58 |
| Tacopaya | \$1,290,864.47 | \$277,760.73 | -\$1,013,103.74 |
| Tahua | \$662,569.45 | \$78,128.65 | -\$584,440.80 |
| Tapacarí | \$6,928,145.16 | \$994,346.98 | -\$5,933,798.18 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|-------------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Tarabuco | \$9,081,882.93 | \$869,654.89 | -\$8,212,228.04 |
| Taraco | \$2,155,028.80 | \$217,359.49 | -\$1,937,669.30 |
| Tarata | \$1,566,629.73 | \$70,927.54 | -\$1,495,702.18 |
| Tarija | \$5,959,282.34 | \$664,219.15 | -\$5,295,063.19 |
| Tarvita | \$7,318,694.21 | \$753,723.01 | -\$6,564,971.20 |
| Teoponte | \$8,537,022.09 | \$1,471,658.79 | -\$7,065,363.30 |
| Tiahuanacu | \$5,735,080.77 | \$817,919.56 | -\$4,917,161.21 |
| Tinguipaya | \$8,286,462.34 | \$270,140.02 | -\$8,016,322.32 |
| Tipuani | \$306,566.98 | \$59,347.60 | -\$247,219.37 |
| Tiquipaya | \$2,125,042.06 | \$1,171,832.02 | -\$953,210.04 |
| Tiraque | \$3,421,546.98 | \$547,359.95 | -\$2,874,187.03 |
| Tito Yupanqui | \$68,509.51 | \$30,924.51 | -\$37,585.00 |
| Todos Santos | \$687.88 | \$13.03 | -\$674.84 |
| Toco | \$775,464.12 | \$74,946.91 | -\$700,517.21 |
| Tolata | \$575,893.03 | \$39,003.78 | -\$536,889.25 |
| Toledo | \$4,060,329.76 | \$274,036.90 | -\$3,786,292.86 |
| Tomave | \$4,478,389.27 | \$352,809.78 | -\$4,125,579.49 |
| Tomina | \$2,604,565.31 | \$342,212.50 | -\$2,262,352.81 |
| Toro Toro | \$3,238,580.99 | \$573,018.06 | -\$2,665,562.93 |
| Totora | \$9,015,622.67 | \$1,630,366.42 | -\$7,385,256.25 |
| Trigal | \$2,663,802.13 | \$327,138.38 | -\$2,336,663.75 |
| Trinidad | \$1,018,592.78 | \$1,444,139.39 | \$425,546.61 |
| Tupiza | \$93,134.47 | \$92,910.24 | -\$224.23 |
| Turco | \$1,211,563.59 | \$41,692.03 | -\$1,169,871.56 |
| Umala | \$15,697,330.20 | \$1,071,010.73 | -\$14,626,319.47 |
| Uncía | \$2,093,605.09 | \$268,863.75 | -\$1,824,741.34 |
| Uriondo | \$1,757,209.02 | \$336,707.82 | -\$1,420,501.20 |
| Urmiri | \$679,402.44 | \$89,088.86 | -\$590,313.58 |
| Urubichá | \$2,150,555.20 | \$1,128,381.94 | -\$1,022,173.26 |
| Uyuni | \$28,224,631.91 | \$3,325,917.54 | -\$24,898,714.38 |
| Vacas | \$2,355,514.85 | \$646,044.08 | -\$1,709,470.77 |
| Vallegrande | \$9,124,168.21 | \$1,045,802.85 | -\$8,078,365.36 |
| Viacha | \$13,525,018.67 | \$1,713,424.50 | -\$11,811,594.16 |
| Vila Vila | \$3,071,444.42 | \$153,478.20 | -\$2,917,966.22 |
| Villa Abecia | \$35,012.84 | \$8,423.85 | -\$26,588.99 |
| Villa Alcalá | \$1,824,615.95 | \$325,602.16 | -\$1,499,013.79 |
| Villa Charcas | \$5,383,127.34 | \$665,595.25 | -\$4,717,532.10 |
| Villa de Sacaca | \$5,102,602.21 | \$628,380.93 | -\$4,474,221.28 |
| Villa Libertad Licoma | \$202,771.93 | \$44,285.70 | -\$158,486.23 |
| Villa Nueva (Loma Alta) | \$887,731.51 | \$57,511.58 | -\$830,219.93 |

| País: Bolivia | Costo | Beneficio (VIPN) | Beneficio-costo |
|-------------------|-----------------|------------------|------------------|
| Municipios | | | |
| Villa Rivero | \$847,694.95 | \$22,184.15 | -\$825,510.79 |
| Villa San Lorenzo | \$4,811,588.91 | \$677,474.62 | -\$4,134,114.29 |
| Villa Serrano | \$4,983,893.54 | \$1,081,775.05 | -\$3,902,118.49 |
| Villa Tunari | \$35,724,769.60 | \$12,797,945.11 | -\$22,926,824.49 |
| Villamontes | \$4,314,882.58 | \$4,880,605.78 | \$565,723.20 |
| Villazón | \$2,423,317.00 | \$661,083.86 | -\$1,762,233.15 |
| Vinto | \$463,144.90 | \$50,054.54 | -\$413,090.36 |
| Vitichi | \$707,050.19 | \$31,624.24 | -\$675,425.95 |
| Waldo Ballivián | \$1,758,896.38 | \$559,755.92 | -\$1,199,140.45 |
| Warnes | \$12,688,970.93 | \$6,461,858.05 | -\$6,227,112.88 |
| Yaco | \$2,215,715.13 | \$309,841.32 | -\$1,905,873.80 |
| Yacuiba | \$55,923,332.94 | \$3,676,475.79 | -\$52,246,857.15 |
| Yamparáez | \$4,263,482.26 | \$232,279.10 | -\$4,031,203.16 |
| Yanacachi | \$444,795.96 | \$96,870.40 | -\$347,925.56 |
| Yapacaní | \$65,091,204.97 | \$7,518,413.23 | -\$57,572,791.74 |
| Yocalla | \$810,457.54 | \$49,210.63 | -\$761,246.91 |
| Yotala | \$1,446,441.21 | \$72,490.73 | -\$1,373,950.49 |
| Yunchará | \$127,059.18 | \$12,669.39 | -\$114,389.79 |
| Zudáñez | \$2,002,966.29 | \$260,691.44 | -\$1,742,274.85 |

| País: Colombia | Costo | Beneficio (VIPN) | Beneficio-costo |
|--------------------|--------------------|------------------|---------------------|
| Departamentos | | | |
| Antioquia | \$1,186,243,735.37 | \$122,703,299.49 | -\$1,063,540,435.88 |
| Atlántico | \$84,723,253.63 | \$5,723,887.00 | -\$78,999,366.63 |
| Santa Fe de Bogotá | \$9,712,214.90 | \$982,631.39 | -\$8,729,583.51 |
| Bolívar | \$417,164,752.00 | \$45,923,961.34 | -\$371,240,790.66 |
| Boyacá | \$787,917,906.90 | \$67,015,748.73 | -\$720,902,158.17 |
| Caldas | \$283,744,384.08 | \$36,706,863.62 | -\$247,037,520.46 |
| Caquetá | \$798,229,141.60 | \$24,668,312.46 | -\$773,560,829.14 |
| Cauca | \$358,969,648.14 | \$51,275,878.89 | -\$307,693,769.24 |
| Cesar | \$717,804,132.28 | \$38,185,241.46 | -\$679,618,890.82 |
| Córdoba | \$668,961,839.30 | \$40,299,153.73 | -\$628,662,685.57 |
| Cundinamarca | \$545,338,095.64 | \$83,241,702.40 | -\$462,096,393.24 |
| Chocó | \$217,922,502.60 | \$32,569,712.65 | -\$185,352,789.94 |
| Huila | \$505,461,689.60 | \$54,136,282.98 | -\$451,325,406.63 |
| La Guajira | \$183,210,945.04 | \$14,980,032.92 | -\$168,230,912.11 |
| Magdalena | \$485,847,793.58 | \$42,331,780.98 | -\$443,516,012.60 |
| Meta | \$2,945,380,905.19 | \$30,132,609.42 | -\$2,915,248,295.77 |
| Nariño | \$423,602,625.57 | \$65,142,485.22 | -\$358,460,140.35 |

| País: Colombia | Costo | Beneficio (VIPN) | Beneficio-costo |
|--------------------|--------------------|------------------|---------------------|
| Departamentos | | | |
| Norte de Santander | \$263,633,015.99 | \$25,458,626.86 | -\$238,174,389.14 |
| Quindío | \$53,826,400.47 | \$9,905,495.80 | -\$43,920,904.67 |
| Risaralda | \$116,072,219.88 | \$24,129,537.69 | -\$91,942,682.19 |
| Santander | \$842,251,006.04 | \$65,547,268.94 | -\$776,703,737.10 |
| Sucre | \$383,174,901.27 | \$29,417,825.57 | -\$353,757,075.70 |
| Tolima | \$649,905,569.83 | \$64,698,630.82 | -\$585,206,939.02 |
| Valle | \$221,716,204.55 | \$37,797,779.21 | -\$183,918,425.34 |
| Arauca | \$953,966,168.47 | \$20,479,432.25 | -\$933,486,736.23 |
| Casanare | \$1,670,028,776.18 | \$21,011,338.50 | -\$1,649,017,437.68 |
| Putumayo | \$133,447,572.51 | \$9,706,599.82 | -\$123,740,972.69 |
| San Andrés | \$1,235,672.41 | \$110,870.26 | -\$1,124,802.15 |
| Amazonas | \$39,115,917.72 | \$4,621,241.58 | -\$34,494,676.13 |
| Guainía | \$111,136,148.18 | \$10,208,042.01 | -\$100,928,106.17 |
| Guaviare | \$245,580,589.73 | \$5,942,490.22 | -\$239,638,099.52 |
| Vaupés | \$46,653,313.16 | \$1,830,089.61 | -\$44,823,223.54 |
| Vichada | \$1,770,398,258.36 | \$10,278,445.53 | -\$1,760,119,812.84 |

| País: Ecuador | Costo | Beneficio | Beneficio-costo |
|------------------|---------------|--------------|-----------------|
| Municipio | | | |
| AZUAY | \$11,020,754 | \$3,813,080 | -\$7,207,674 |
| BOLIVAR | \$15,352,413 | \$5,007,724 | -\$10,344,688 |
| CAÑAR | \$3,846,919 | \$2,003,926 | -\$1,842,993 |
| CARCHI | \$7,114,499 | \$8,183,552 | \$1,069,053 |
| COTOPAXI | \$17,970,559 | \$7,903,124 | -\$10,067,435 |
| CHIMBORAZO | \$5,440,356 | \$2,572,044 | -\$2,868,313 |
| EL ORO | \$29,910,873 | \$8,410,489 | -\$21,500,384 |
| ESMERALDAS | \$102,612,778 | \$45,551,755 | -\$57,061,023 |
| GUAYAS | \$84,670,077 | \$21,401,216 | -\$63,268,861 |
| IMBABURA | \$4,869,220 | \$2,847,698 | -\$2,021,522 |
| LOJA | \$6,931,151 | \$3,971,947 | -\$2,959,204 |
| LOS RIOS | \$55,472,099 | \$24,423,018 | -\$31,049,081 |
| MANABI | \$206,991,756 | \$54,665,070 | -\$152,326,686 |
| MORONA SANTIAGO | \$9,209,767 | \$3,032,399 | -\$6,177,368 |
| NAPO | \$5,577,352 | \$1,248,115 | -\$4,329,237 |
| PASTAZA | \$2,219,321 | \$691,495 | -\$1,527,826 |
| PICHINCHA | \$30,962,545 | \$16,473,374 | -\$14,489,171 |
| TUNGURAHUA | \$2,812,996 | \$2,607,879 | -\$205,118 |
| ZAMORA CHINCHIPE | \$4,489,131 | \$1,131,723 | -\$3,357,408 |
| SUCUMBIOS | \$9,486,185 | \$3,762,313 | -\$5,723,872 |

| País: Ecuador | Costo | Beneficio | Beneficio-costo |
|--------------------------------|--------------|--------------|-----------------|
| Municipio | | | |
| ORELLANA | \$5,941,078 | \$3,788,872 | -\$2,152,206 |
| SANTO DOMINGO DE LOS TSACHILAS | \$70,210,814 | \$26,814,834 | -\$43,395,980 |
| SANTA ELENA | \$2,156,608 | \$293,516 | -\$1,863,092 |
| ZONAS NO DELIMITADAS | \$1,699,045 | \$985,184 | -\$713,861 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------|--------------|--------------|-----------------|
| Municipios | | | |
| CHACHAPOYAS | 7,120.42 | \$16,445.55 | \$9,325.14 |
| ASUNCION | 581,497.67 | \$11,566.02 | -\$569,931.65 |
| BALSAS | 1,212,268.63 | \$3,201.83 | -\$1,209,066.80 |
| CHILIQUIN | 2,864,149.51 | \$45,337.97 | -\$2,818,811.54 |
| CHUQUIBAMBA | 2,707,683.42 | \$54,014.90 | -\$2,653,668.52 |
| LA JALCA | 1,145,341.57 | \$61,471.08 | -\$1,083,870.49 |
| LEIMBAMBA | 3,844,408.28 | \$140,090.06 | -\$3,704,318.22 |
| LEVANTO | 9,900,117.82 | \$72,702.63 | -\$9,827,415.19 |
| MAGDALENA | 2,426,971.99 | \$1,999.35 | -\$2,424,972.64 |
| MOLINOPAMPA | 1,311,387.02 | \$22,171.33 | -\$1,289,215.68 |
| OLLEROS | 200,973.07 | \$18,972.53 | -\$182,000.55 |
| SOLOCO | 1,425,413.80 | \$103,932.49 | -\$1,321,481.31 |
| ARAMANGO | 1,775,696.02 | \$52,112.80 | -\$1,723,583.22 |
| COPALLIN | 115,646.68 | \$104.35 | -\$115,542.33 |
| EL PARCO | 269,434.31 | \$428.71 | -\$269,005.60 |
| IMAZA | 2,126,541.16 | \$71,937.92 | -\$2,054,603.24 |
| JUMBILLA | 760,320.25 | \$25,350.51 | -\$734,969.73 |
| FLORIDA | 1,236,914.16 | \$73,970.64 | -\$1,162,943.52 |
| JAZAN | 331,682.33 | \$6,850.64 | -\$324,831.69 |
| YAMBRASBAMBA | 4,113,805.88 | \$159,774.89 | -\$3,954,030.99 |
| NIEVA | 1,695,015.03 | \$15,727.66 | -\$1,679,287.37 |
| RIO SANTIAGO | 1,177,828.07 | \$59,294.60 | -\$1,118,533.47 |
| LAMUD | 298,063.28 | \$21,636.16 | -\$276,427.12 |
| CAMPORREDONDO | 2,810,082.39 | \$157,345.02 | -\$2,652,737.37 |
| COCABAMBA | 258,137.33 | \$1,858.61 | -\$256,278.72 |
| COLCAMAR | 226,167.55 | \$11,219.01 | -\$214,948.54 |
| CONILA | 920,382.52 | \$31,392.50 | -\$888,990.02 |
| LONYA CHICO | 112,672.12 | \$9,141.13 | -\$103,530.99 |
| LUYA | 280,232.87 | \$25,515.71 | -\$254,717.16 |
| OCALLI | 421,550.88 | \$19,241.32 | -\$402,309.56 |
| OCUMAL | 2,096,770.26 | \$75,952.63 | -\$2,020,817.64 |
| PISUQUIA | 3,159,849.21 | \$65,909.82 | -\$3,093,939.39 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|----------------|--------------|--------------|-----------------|
| Municipios | | | |
| PROVIDENCIA | 455,822.33 | \$14,592.23 | -\$441,230.10 |
| SAN CRISTOBAL | 2,963,824.01 | \$5,499.12 | -\$2,958,324.89 |
| SAN JERONIMO | 1,370,414.39 | \$57,274.11 | -\$1,313,140.28 |
| SANTA CATALINA | 379,331.26 | \$18,130.81 | -\$361,200.46 |
| SANTO TOMAS | 2,944,527.00 | \$54,030.91 | -\$2,890,496.09 |
| TINGO | 450,677.83 | \$23,039.78 | -\$427,638.05 |
| SAN NICOLAS | 1,452,222.19 | \$31,221.41 | -\$1,421,000.78 |
| COCHAMAL | 157,714.99 | \$12,273.35 | -\$145,441.64 |
| HUAMBO | 909,132.48 | \$64,042.60 | -\$845,089.88 |
| LIMABAMBA | 2,481,019.95 | \$38,286.33 | -\$2,442,733.62 |
| LONGAR | 126,516.44 | \$15,008.11 | -\$111,508.33 |
| OMIA | 2,425,213.71 | \$131,688.72 | -\$2,293,525.00 |
| SANTA ROSA | 5,855,116.53 | \$238,010.01 | -\$5,617,106.53 |
| VISTA ALEGRE | 3,201,396.91 | \$18,286.04 | -\$3,183,110.87 |
| BAGUA GRANDE | 3,038,412.79 | \$106,654.57 | -\$2,931,758.22 |
| CAJARURO | 913,124.37 | \$31,882.22 | -\$881,242.15 |
| CUMBA | 768,475.35 | \$39,202.65 | -\$729,272.70 |
| JAMALCA | 436,563.83 | \$24,827.42 | -\$411,736.41 |
| LONYA GRANDE | 407,559.26 | \$32,431.14 | -\$375,128.12 |
| HUARAZ | 67,375.16 | \$3,253.17 | -\$64,121.99 |
| COCHABAMBA | 140,921.04 | \$254.60 | -\$140,666.44 |
| COLCABAMBA | 556,389.50 | \$1,568.98 | -\$554,820.53 |
| INDEPENDENCIA | 3,337,817.84 | \$10,630.23 | -\$3,327,187.61 |
| JANGAS | 79,299.41 | \$804.27 | -\$78,495.14 |
| PIRA | 222,132.73 | \$3,001.29 | -\$219,131.44 |
| AIJA | 226,280.15 | \$211.41 | -\$226,068.74 |
| LLAMELLIN | 60,292.12 | \$556.16 | -\$59,735.96 |
| CHINGAS | 74,787.18 | \$302.02 | -\$74,485.16 |
| ACOCHACA | 133,198.06 | \$308.66 | -\$132,889.40 |
| COLQUIOC | 85,143.27 | \$339.77 | -\$84,803.50 |
| HUALLANCA | 182,460.66 | \$0.00 | -\$182,460.66 |
| CARHUAZ | 43,750.95 | \$1,699.45 | -\$42,051.50 |
| ACOPAMPA | 44,120.99 | \$128.81 | -\$43,992.18 |
| AMASHCA | 15,711.64 | \$21.14 | -\$15,690.50 |
| ANTA | 417,494.00 | \$39,126.09 | -\$378,367.91 |
| MARCARA | 67,641.50 | \$148.74 | -\$67,492.76 |
| PARIAHUANCA | 52,257.18 | \$2,395.60 | -\$49,861.58 |
| SHILLA | 18,761.18 | \$128.36 | -\$18,632.83 |
| SAN LUIS | 475,621.54 | \$9,821.73 | -\$465,799.81 |
| YAUYA | 161,877.32 | \$10,127.52 | -\$151,749.80 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-------------------|--------------|--------------|-----------------|
| Municipios | | | |
| CASMA | 2,589,944.52 | \$0.00 | -\$2,589,944.52 |
| BUENA VISTA ALTA | 343,804.84 | \$37.75 | -\$343,767.08 |
| COMANDANTE NOEL | 7,968,190.53 | \$4,975.72 | -\$7,963,214.81 |
| YAUTAN | 165,153.60 | \$0.00 | -\$165,153.60 |
| CORONGO | 136,943.42 | \$2,760.13 | -\$134,183.29 |
| HUARI | 118,432.57 | \$3,517.89 | -\$114,914.68 |
| ANRA | 43,198.34 | \$393.38 | -\$42,804.96 |
| CHAVIN DE HUANTAR | 95,758.69 | \$6,587.13 | -\$89,171.56 |
| HUACCHIS | 61,686.17 | \$958.15 | -\$60,728.02 |
| HUANTAR | 135,667.40 | \$3,203.49 | -\$132,463.91 |
| MASIN | 14,427.07 | \$145.42 | -\$14,281.65 |
| SAN MARCOS | 66,430.59 | \$1,413.44 | -\$65,017.15 |
| CARAZ | 181,759.75 | \$167.47 | -\$181,592.28 |
| HUATA | 3,541,143.09 | \$13,001.81 | -\$3,528,141.27 |
| PUEBLO LIBRE | 69,947.40 | \$171.39 | -\$69,776.01 |
| SANTA CRUZ | 799,117.61 | \$11,324.56 | -\$787,793.05 |
| CASCA | 72,700.78 | \$4,407.33 | -\$68,293.46 |
| LLUMPA | 73,986.69 | \$12,484.46 | -\$61,502.23 |
| OCROS | 141,365.29 | \$1,902.70 | -\$139,462.59 |
| SAN PEDRO | 96,581.77 | \$487.76 | -\$96,094.01 |
| CABANA | 610,765.90 | \$15,085.12 | -\$595,680.78 |
| PAMPAS | 232,328.05 | \$12,630.33 | -\$219,697.72 |
| PAROBAMBA | 94,835.04 | \$3,389.08 | -\$91,445.96 |
| QUINUABAMBA | 219,455.22 | \$7,332.36 | -\$212,122.87 |
| RECUAY | 552,989.31 | \$7,103.88 | -\$545,885.43 |
| PARARIN | 56,484.92 | \$138.93 | -\$56,346.00 |
| TICAPAMPA | 122,112.91 | \$2,753.18 | -\$119,359.73 |
| CHIMBOTE | 5,286,009.89 | \$516.45 | -\$5,285,493.44 |
| MACATE | 623,688.32 | \$2,699.27 | -\$620,989.04 |
| MORO | 86,780.07 | \$558,730.57 | \$471,950.50 |
| SAMANCO | 252,093.88 | \$575.34 | -\$251,518.53 |
| SIHUAS | 174,193.86 | \$272.72 | -\$173,921.14 |
| ACOBAMBA | 401,421.91 | \$10,245.61 | -\$391,176.30 |
| CASHAPAMPA | 68,815.48 | \$715.78 | -\$68,099.71 |
| HUAYLLABAMBA | 58,597.24 | \$2,055.22 | -\$56,542.02 |
| RAGASH | 28,306.77 | \$854.25 | -\$27,452.52 |
| YUNGAY | 82,171.38 | \$314.70 | -\$81,856.68 |
| CASCAPARA | 7,525.39 | \$0.00 | -\$7,525.39 |
| MANCOS | 72,322.29 | \$191.33 | -\$72,130.96 |
| QUILLO | 239,918.20 | \$56.63 | -\$239,861.57 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-----------------------|--------------|-------------|-----------------|
| Municipios | | | |
| RANRAHIRCA | 21,556.84 | \$266.53 | -\$21,290.31 |
| YANAMA | 133,348.92 | \$3,453.71 | -\$129,895.21 |
| ABANCAY | 515,213.51 | \$272.72 | -\$514,940.79 |
| CURAHUASI | 1,521,069.49 | \$4,089.61 | -\$1,516,979.89 |
| HUANIPACA | 334,369.33 | \$2,691.57 | -\$331,677.76 |
| LAMBRAMA | 38,490.07 | \$899.71 | -\$37,590.37 |
| PICHIRHUA | 52,546.44 | \$1,307.28 | -\$51,239.17 |
| ANDAHUAYLAS | 303,119.22 | \$37,850.22 | -\$265,269.00 |
| ANDARAPA | 116,706.07 | \$2,678.58 | -\$114,027.48 |
| CHIARA | 608,555.25 | \$44,522.07 | -\$564,033.19 |
| HUANCARAMA | 68,225.98 | \$106.76 | -\$68,119.22 |
| HUANCARAY | 103,248.27 | \$1,599.63 | -\$101,648.64 |
| KISHUARA | 537,203.30 | \$12,851.26 | -\$524,352.04 |
| PACUCHA | 406,350.13 | \$8,861.16 | -\$397,488.97 |
| PAMPACHIRI | 64,727.03 | \$4,833.02 | -\$59,894.01 |
| SANTA MARIA DE CHICMO | 248,712.84 | \$7,516.89 | -\$241,195.95 |
| TALavera | 456,287.56 | \$4,547.61 | -\$451,739.94 |
| TURPO | 69,315.69 | \$98.16 | -\$69,217.54 |
| KAQUIABAMBA | 160,695.56 | \$12,663.85 | -\$148,031.70 |
| JUAN ESPINOZA MEDRANO | 63,190.57 | \$1,037.73 | -\$62,152.84 |
| OROPESA | 168,789.55 | \$10,589.76 | -\$158,199.79 |
| CAPAYA | 802,857.39 | \$280.12 | -\$802,577.27 |
| COTARUSE | 43,000.64 | \$1,946.80 | -\$41,053.84 |
| LUCRE | 52,461.44 | \$805.48 | -\$51,655.97 |
| POCOHUANCA | 18,843.96 | \$324.67 | -\$18,519.29 |
| TAMBOBAMBA | 106,993.15 | \$16,964.12 | -\$90,029.03 |
| COTABAMBAS | 70,784.05 | \$7,484.57 | -\$63,299.48 |
| COYLLURQUI | 92,511.11 | \$5,540.95 | -\$86,970.17 |
| HAQUIRA | 122,204.36 | \$5,300.84 | -\$116,903.52 |
| MARA | 31,485.61 | \$4,496.27 | -\$26,989.34 |
| CHALLHUAHUACHO | 91,607.49 | \$7,569.89 | -\$84,037.60 |
| CHINCHEROS | 62,578.33 | \$1,325.55 | -\$61,252.78 |
| HUACCANA | 90,408.86 | \$134.25 | -\$90,274.61 |
| OCOBAMBA | 629,294.13 | \$10,750.73 | -\$618,543.40 |
| ONGOY | 418,920.97 | \$2,615.16 | -\$416,305.81 |
| URANMARCA | 180,507.45 | \$251.88 | -\$180,255.56 |
| GAMARRA | 128,085.38 | \$1,432.31 | -\$126,653.07 |
| HUAYLLATI | 207,780.64 | \$2,426.25 | -\$205,354.39 |
| SAN ANTONIO | 1,705,361.68 | \$47,221.94 | -\$1,658,139.74 |
| VILCABAMBA | 706,114.97 | \$21,552.65 | -\$684,562.31 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-------------------------------|---------------|--------------|------------------|
| Municipios | | | |
| CAYMA | 70,501.02 | \$63,298.89 | -\$7,202.13 |
| CERRO COLORADO | 417,954.78 | \$1,238.42 | -\$416,716.36 |
| CHARACATO | 159,318.68 | \$2,012.79 | -\$157,305.89 |
| CHIGUATA | 84,829.74 | \$1,057.06 | -\$83,772.68 |
| LA JOYA | 1,054,495.78 | \$100,037.08 | -\$954,458.70 |
| MIRAFLORES | 75,209.39 | \$411.35 | -\$74,798.05 |
| PAUCARPATA | 29,227.42 | \$568.55 | -\$28,658.87 |
| POLOBAYA | 157,347.95 | \$1,322.08 | -\$156,025.88 |
| SABANDIA | 64,627.79 | \$1,766.80 | -\$62,860.99 |
| SOCABAYA | 469,502.43 | \$191,916.40 | -\$277,586.03 |
| UCHUMAYO | 178,010.40 | \$541,153.20 | \$363,142.80 |
| VITOR | 1,668,193.30 | \$114,715.39 | -\$1,553,477.91 |
| YANAHUARA | 578.53 | \$29,528.91 | \$28,950.38 |
| YURA | 365,879.19 | \$1,245.06 | -\$364,634.13 |
| JOSE LUIS BUSTAMANTE Y RIVERO | 178,132.11 | \$2,040.88 | -\$176,091.24 |
| ACARI | 1,090,933.40 | \$528.53 | -\$1,090,404.87 |
| CAHUACHO | 115,402.72 | \$642.69 | -\$114,760.03 |
| APLAO | 652,356.94 | \$53,253.82 | -\$599,103.12 |
| ANDAGUA | 292,035.50 | \$3,367.48 | -\$288,668.01 |
| CHACHAS | 58,382.56 | \$638.01 | -\$57,744.55 |
| CHILCAYMARCA | 139,644.71 | \$13,549.37 | -\$126,095.34 |
| HUANCARQUI | 290,685.95 | \$30.20 | -\$290,655.75 |
| MACHAGUAY | 381,318.23 | \$22,178.58 | -\$359,139.65 |
| PAMPACOLCA | 358,236.92 | \$67,574.69 | -\$290,662.23 |
| TIPAN | 245,773.17 | \$16,346.64 | -\$229,426.53 |
| VIRACO | 55,884.58 | \$634.23 | -\$55,250.35 |
| ACHOMA | 306,740.17 | \$2,991.47 | -\$303,748.70 |
| CALLALLI | 44,232,914.24 | \$51,793.57 | -\$44,181,120.68 |
| COPORAQUE | 2,955,554.51 | \$5,300.39 | -\$2,950,254.12 |
| LLUTA | 722,869.52 | \$36,259.95 | -\$686,609.57 |
| MADRIGAL | 60,342.74 | \$101.93 | -\$60,240.81 |
| SAN ANTONIO DE CHUCA | 7,056,332.26 | \$7,217.14 | -\$7,049,115.12 |
| TISCO | 9,011,776.50 | \$19,588.79 | -\$8,992,187.71 |
| MAJES | 10,744,580.53 | \$338,195.08 | -\$10,406,385.45 |
| CAYARANI | 2,337,325.50 | \$5,212.05 | -\$2,332,113.45 |
| IRAY | 348,228.39 | \$12,095.01 | -\$336,133.39 |
| RIO GRANDE | 225,425.70 | \$1,286.29 | -\$224,139.41 |
| YANAQUIHUA | 119,791.01 | \$952.56 | -\$118,838.45 |
| COCACHACRA | 538,644.70 | \$154,934.48 | -\$383,710.22 |
| PUNTA DE BOMBON | 717,858.31 | \$34,817.97 | -\$683,040.34 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-------------------------|--------------|--------------|-----------------|
| Municipios | | | |
| ALCA | 79,533.82 | \$4,311.89 | -\$75,221.93 |
| PAMPAMARCA | 17,769.00 | \$1,079.71 | -\$16,689.29 |
| ACOCRO | 695,659.64 | \$7,456.18 | -\$688,203.45 |
| SAN JOSE DE TICLLAS | 78,644.44 | \$4,092.32 | -\$74,552.12 |
| SAN JUAN BAUTISTA | 1,167,107.63 | \$997,117.06 | -\$169,990.57 |
| SANTIAGO DE PISCHA | 191,597.60 | \$8,487.12 | -\$183,110.48 |
| SOCOS | 336,403.16 | \$6,321.81 | -\$330,081.35 |
| TAMBILLO | 221,447.17 | \$2,892.56 | -\$218,554.60 |
| VINCHOS | 192,929.90 | \$11,889.18 | -\$181,040.71 |
| CANGALLO | 37,488.43 | \$1,661.09 | -\$35,827.34 |
| CHUSCHI | 398,123.15 | \$6,268.65 | -\$391,854.49 |
| LOS MOROCHUCOS | 337,527.72 | \$6,914.52 | -\$330,613.20 |
| MARIA PARADO DE BELLIDO | 63,700.47 | \$10.87 | -\$63,689.59 |
| SACSAMARCA | 167,621.82 | \$1,162.46 | -\$166,459.36 |
| HUANTA | 878,449.72 | \$10,071.19 | -\$868,378.53 |
| AYAHUANCO | 303,703.77 | \$13,945.31 | -\$289,758.46 |
| HUAMANGUILLA | 235,609.56 | \$107.97 | -\$235,501.59 |
| LURICOCHA | 107,585.04 | \$13.29 | -\$107,571.75 |
| SIVIA | 550,939.97 | \$52,775.58 | -\$498,164.39 |
| SAN MIGUEL | 618,919.92 | \$9,135.24 | -\$609,784.68 |
| ANCO | 858,719.95 | \$61,218.60 | -\$797,501.35 |
| CHILCAS | 15,580.36 | \$0.00 | -\$15,580.36 |
| CHUNGUI | 541,368.47 | \$11,451.56 | -\$529,916.91 |
| TAMBO | 620,989.26 | \$20,152.35 | -\$600,836.90 |
| PUQUIO | 486,346.66 | \$844.14 | -\$485,502.52 |
| HUAC-HUAS | 79,726.41 | \$1,507.06 | -\$78,219.35 |
| LARAMATE | 36,136.11 | \$4,765.82 | -\$31,370.29 |
| LEONCIO PRADO | 199,024.53 | \$7,310.31 | -\$191,714.22 |
| LUCANAS | 789,798.77 | \$6,974.32 | -\$782,824.45 |
| CORACORA | 230,255.34 | \$490.32 | -\$229,765.01 |
| PULLO | 93,900.49 | \$11,097.60 | -\$82,802.89 |
| PUYUSCA | 664,154.58 | \$17,624.33 | -\$646,530.25 |
| PAUSA | 188,319.43 | \$948.33 | -\$187,371.10 |
| BELEN | 404,824.02 | \$19,349.59 | -\$385,474.42 |
| ALCAMENCA | 79,650.76 | \$26.28 | -\$79,624.48 |
| CANARIA | 104,242.78 | \$350.64 | -\$103,892.14 |
| COLCA | 85,288.68 | \$563.11 | -\$84,725.57 |
| HUANCARAYLLA | 31,912.26 | \$2,931.37 | -\$28,980.89 |
| HUALLA | 116,333.70 | \$6,638.47 | -\$109,695.22 |
| SARHUA | 21,444.25 | \$1,312.11 | -\$20,132.13 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-----------------------|---------------|--------------|------------------|
| Municipios | | | |
| VILCANCHOS | 79,302.52 | \$20,251.57 | -\$59,050.95 |
| VILCAS HUAMAN | 134,077.99 | \$1,851.06 | -\$132,226.93 |
| VISCHONGO | 59,464.37 | \$1,273.60 | -\$58,190.77 |
| CAJAMARCA | 15,953,316.30 | \$1,162.91 | -\$15,952,153.39 |
| ASUNCION | 103,904.67 | \$4,291.65 | -\$99,613.01 |
| ENCAÑADA | 1,745,259.58 | \$62,092.03 | -\$1,683,167.55 |
| LLACANORA | 144,671.28 | \$8,555.07 | -\$136,116.21 |
| LOS BAÑOS DEL INCA | 267,853.81 | \$16,397.53 | -\$251,456.28 |
| CAJABAMBA | 27,633.44 | \$847.61 | -\$26,785.83 |
| CACHACHI | 570,427.21 | \$7,318.92 | -\$563,108.29 |
| SITACOCHA | 2,485,229.90 | \$21,364.35 | -\$2,463,865.55 |
| CHUMUCH | 89,221.04 | \$1,936.98 | -\$87,284.05 |
| HUASMIN | 31,389.20 | \$2,360.26 | -\$29,028.94 |
| JOSE GALVEZ | 172,403.07 | \$2,954.48 | -\$169,448.60 |
| SOROCHUCO | 148,492.50 | \$11,615.10 | -\$136,877.40 |
| LA LIBERTAD DE PALLAN | 138,369.71 | \$2,637.81 | -\$135,731.90 |
| CHOTA | 456,000.34 | \$20,697.49 | -\$435,302.85 |
| ANGUIA | 66,302.20 | \$3,606.98 | -\$62,695.22 |
| CHIGUIRIP | 129,696.16 | \$14,925.96 | -\$114,770.20 |
| CONCHAN | 130,301.39 | \$2,241.11 | -\$128,060.27 |
| HUAMBOS | 338,503.24 | \$23,610.75 | -\$314,892.49 |
| LAJAS | 115,495.37 | \$13,020.84 | -\$102,474.54 |
| MIRACOSTA | 162,759.36 | \$591.20 | -\$162,168.16 |
| CHALAMARCA | 337,374.21 | \$7,416.92 | -\$329,957.29 |
| CONTUMAZA | 4,228,345.56 | \$11,561.04 | -\$4,216,784.52 |
| CUTERVO | 507,485.39 | \$42,393.91 | -\$465,091.48 |
| QUEROCOTILLO | 284,462.84 | \$9,761.02 | -\$274,701.82 |
| SAN LUIS DE LUCMA | 94,561.35 | \$1,814.21 | -\$92,747.14 |
| BAMBAMARCA | 195,021.74 | \$8,782.94 | -\$186,238.80 |
| CHUGUR | 401,387.73 | \$27,945.89 | -\$373,441.84 |
| JAEN | 357,349.20 | \$35,850.12 | -\$321,499.09 |
| BELLAVISTA | 5,220,219.51 | \$128,816.09 | -\$5,091,403.42 |
| PUCARA | 1,321,030.75 | \$22,504.01 | -\$1,298,526.75 |
| SAN JOSE DEL ALTO | 519,527.80 | \$42,335.92 | -\$477,191.88 |
| SAN IGNACIO | 773,597.60 | \$86,360.57 | -\$687,237.03 |
| CHIRINOS | 14,463.35 | \$799.74 | -\$13,663.61 |
| HUARANGO | 456,796.92 | \$37,242.87 | -\$419,554.05 |
| LA COIPA | 416,873.66 | \$68,820.66 | -\$348,053.00 |
| SAN JOSE DE LOURDES | 3,417,517.09 | \$93,282.64 | -\$3,324,234.46 |
| TABACONAS | 597,007.95 | \$76,506.67 | -\$520,501.27 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-------------------------|--------------|--------------|-----------------|
| Municipios | | | |
| PEDRO GALVEZ | 163,377.95 | \$4,259.19 | -\$159,118.76 |
| CHANCA Y | 472,252.69 | \$470,296.66 | -\$1,956.03 |
| JOSE MANUEL QUIROZ | 75,458.61 | \$3,084.95 | -\$72,373.66 |
| JOSE SABOGAL | 92,527.76 | \$5,686.67 | -\$86,841.09 |
| BOLIVAR | 360,268.58 | \$9,602.62 | -\$350,665.96 |
| LA FLORIDA | 107,048.78 | \$1,899.68 | -\$105,149.10 |
| LLAPA | 112,918.67 | \$4,628.71 | -\$108,289.97 |
| SAN SILVESTRE DE COCHAN | 183,083.70 | \$358.80 | -\$182,724.90 |
| SAN PABLO | 7,241,225.78 | \$127,785.76 | -\$7,113,440.03 |
| SAN BERNARDINO | 335,816.62 | \$6,099.07 | -\$329,717.55 |
| ANDABAMBA | 91,763.87 | \$5,685.31 | -\$86,078.56 |
| CHANCA YBAÑOS | 587,897.15 | \$4,300.26 | -\$583,596.88 |
| LA ESPERANZA | 53,785.84 | \$2,229.18 | -\$51,556.66 |
| NINABAMBA | 78,099.84 | \$2,876.71 | -\$75,223.13 |
| SAUCEPAMPA | 44,206.66 | \$3,759.95 | -\$40,446.70 |
| VENTANILLA | 5,271.33 | \$25,544.26 | \$20,272.92 |
| SANTIAGO | 3,217,956.50 | \$4,831.66 | -\$3,213,124.84 |
| RONDOCAN | 65,209.66 | \$888.68 | -\$64,320.97 |
| ANCAHUASI | 156,539.39 | \$4,045.96 | -\$152,493.42 |
| CACHIMAYO | 94,599.18 | \$20,280.41 | -\$74,318.77 |
| CHINCHAYPUJIO | 82,130.66 | \$1,056.15 | -\$81,074.51 |
| HUAROCONDO | 3,068,894.91 | \$17,815.05 | -\$3,051,079.86 |
| LIMATAMBO | 460,306.16 | \$541.36 | -\$459,764.80 |
| MOLLEPATA | 1,023,900.45 | \$20,600.85 | -\$1,003,299.60 |
| PUCYURA | 30,395.28 | \$813.93 | -\$29,581.34 |
| LARES | 221,923.56 | \$6,043.35 | -\$215,880.21 |
| PISAC | 84,316.94 | \$537.29 | -\$83,779.65 |
| YANATILE | 447,312.33 | \$12,593.79 | -\$434,718.54 |
| YANA OCA | 25,244.32 | \$785.24 | -\$24,459.08 |
| CHECCA | 291,081.72 | \$4,230.50 | -\$286,851.22 |
| LANGUI | 78,004.16 | \$543.93 | -\$77,460.23 |
| TUPAC AMARU | 50,885.61 | \$7,931.26 | -\$42,954.35 |
| SICUANI | 61,636.32 | \$4,593.67 | -\$57,042.65 |
| CHECACUPE | 24,929.02 | \$0.00 | -\$24,929.02 |
| COMBAPATA | 27,151.04 | \$24.46 | -\$27,126.57 |
| PITUMARCA | 45,463.41 | \$218.21 | -\$45,245.20 |
| COLQUEMARCA | 256,072.41 | \$29,527.40 | -\$226,545.01 |
| LLUSCO | 20,955.16 | \$407.57 | -\$20,547.59 |
| QUIÑOTA | 670,622.81 | \$10,132.05 | -\$660,490.76 |
| VELILLE | 1,793,488.15 | \$12,305.06 | -\$1,781,183.10 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|--------------|--------------|-------------|-----------------|
| Municipios | | | |
| ESPINAR | 695,130.61 | \$36,341.20 | -\$658,789.42 |
| PALLPATA | 1,151,749.54 | \$12,276.67 | -\$1,139,472.87 |
| SUYCKUTAMBO | 285,072.53 | \$7,050.73 | -\$278,021.80 |
| SANTA ANA | 1,424,032.03 | \$17,330.01 | -\$1,406,702.02 |
| ECHARATE | 5,054,814.47 | \$75,946.58 | -\$4,978,867.89 |
| HUAYOPATA | 185,353.33 | \$10,630.23 | -\$174,723.10 |
| QUELLOUNO | 2,210,835.76 | \$29,087.82 | -\$2,181,747.95 |
| KIMBIRI | 204,217.99 | \$22,275.53 | -\$181,942.46 |
| PICHARI | 672,142.80 | \$72,109.77 | -\$600,033.03 |
| PARURO | 72,944.88 | \$395.49 | -\$72,549.39 |
| CCAPI | 151,192.84 | \$599.35 | -\$150,593.49 |
| COLCHA | 106,310.06 | \$163.24 | -\$106,146.82 |
| HUANOQUITE | 128,251.84 | \$1,551.01 | -\$126,700.83 |
| PACCARITAMBO | 82,798.87 | \$9,891.19 | -\$72,907.68 |
| PILLPINTO | 51,702.81 | \$1,485.02 | -\$50,217.80 |
| PAUCARTAMBO | 1,261,023.01 | \$66,339.44 | -\$1,194,683.57 |
| CAICAY | 60,980.35 | \$848.67 | -\$60,131.69 |
| CHALLABAMBA | 128,194.63 | \$4,218.11 | -\$123,976.52 |
| HUANCARANI | 222,959.36 | \$4,597.75 | -\$218,361.61 |
| KOSÑIPATA | 2,225,156.70 | \$31,711.73 | -\$2,193,444.97 |
| URCOS | 88,831.89 | \$825.41 | -\$88,006.48 |
| CAMANTI | 1,655,619.10 | \$27,662.00 | -\$1,627,957.11 |
| CUSIPATA | 56,168.06 | \$6,614.16 | -\$49,553.90 |
| HUARO | 66,042.53 | \$166.11 | -\$65,876.42 |
| OCONGATE | 487,598.30 | \$184.23 | -\$487,414.07 |
| QUIQUIJANA | 46,075.66 | \$1,001.94 | -\$45,073.72 |
| URUBAMBA | 99,267.72 | \$0.00 | -\$99,267.72 |
| CHINCHERO | 75,562.08 | \$3,866.87 | -\$71,695.21 |
| HUANCAVELICA | 52,182.19 | \$12,978.86 | -\$39,203.33 |
| ACORIA | 846,511.21 | \$17,026.48 | -\$829,484.72 |
| HUACHOCOLPA | 350,703.18 | \$6,459.08 | -\$344,244.11 |
| HUAYLLAHUARA | 49,444.17 | \$2,491.18 | -\$46,952.99 |
| IZCUCHACA | 33,487.65 | \$2,159.12 | -\$31,328.53 |
| MOYA | 25,916.09 | \$701.58 | -\$25,214.50 |
| PALCA | 80,760.11 | \$7,384.91 | -\$73,375.21 |
| YAULI | 296,642.31 | \$14,831.88 | -\$281,810.43 |
| ASCENSION | 537,526.88 | \$6,770.46 | -\$530,756.42 |
| HUANDO | 75,422.78 | \$5,556.65 | -\$69,866.13 |
| CAJA | 274,181.75 | \$13,298.54 | -\$260,883.20 |
| MARCAS | 87,951.60 | \$1,753.36 | -\$86,198.25 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------------|--------------|-------------|-----------------|
| Municipios | | | |
| PAUCARA | 235,332.34 | \$10,369.13 | -\$224,963.20 |
| ROSARIO | 183,876.40 | \$7,761.07 | -\$176,115.33 |
| LIRCAY | 177,645.93 | \$7,875.08 | -\$169,770.84 |
| ANCHONGA | 20,461.40 | \$152.52 | -\$20,308.89 |
| CALLANMARCA | 47,572.83 | \$1,045.58 | -\$46,527.25 |
| CHINCHO | 96,200.38 | \$0.00 | -\$96,200.38 |
| CONGALLA | 175,692.70 | \$313.04 | -\$175,379.66 |
| HUAYLLAY GRANDE | 46,331.66 | \$2,212.27 | -\$44,119.38 |
| SECCLLA | 74,475.10 | \$2,918.39 | -\$71,556.72 |
| ARMA | 266,184.29 | \$104.20 | -\$266,080.09 |
| CHUPAMARCA | 239,272.48 | \$889.29 | -\$238,383.19 |
| CHURCAMPÁ | 441,736.14 | \$13,389.15 | -\$428,346.99 |
| LOCROJA | 120,107.62 | \$3,831.83 | -\$116,275.79 |
| SAN PEDRO DE CORIS | 146,117.83 | \$7,450.75 | -\$138,667.08 |
| PACHAMARCA | 37,269.81 | \$4,179.15 | -\$33,090.66 |
| COSME | 110,681.97 | \$5,666.13 | -\$105,015.84 |
| HUAYACUNDO ARMA | 55,348.55 | \$9.06 | -\$55,339.49 |
| PILPICHACA | 1,742,181.09 | \$17,687.14 | -\$1,724,493.94 |
| QUITO-ARMA | 350,509.13 | \$1,932.91 | -\$348,576.23 |
| SAN ISIDRO | 80,402.85 | \$22.95 | -\$80,379.89 |
| SANTIAGO DE CHOCORVOS | 176,894.27 | \$10,829.41 | -\$166,064.86 |
| SANTIAGO DE QUIRAHUARA | 205,048.40 | \$9,141.74 | -\$195,906.66 |
| SANTO DOMINGO DE CAPILLAS | 365,640.71 | \$10,145.94 | -\$355,494.76 |
| ACOSTAMBO | 759,755.06 | \$49,474.84 | -\$710,280.23 |
| ACRAQUIA | 73,429.29 | \$36,859.30 | -\$36,569.99 |
| AHUAYCHA | 27,496.60 | \$702.04 | -\$26,794.56 |
| DANIEL HERNANDEZ | 425,168.56 | \$12,446.40 | -\$412,722.16 |
| HUARIBAMBA | 156,082.30 | \$2,364.94 | -\$153,717.36 |
| PAZOS | 82,707.86 | \$9,422.92 | -\$73,284.94 |
| SALCAHUASI | 207,407.54 | \$5,641.82 | -\$201,765.72 |
| HUANUCO | 358,354.07 | \$50,673.84 | -\$307,680.23 |
| AMARILIS | 173,156.50 | \$2,113.06 | -\$171,043.44 |
| CHINCHAO | 1,416,006.87 | \$24,834.21 | -\$1,391,172.66 |
| CHURUBAMBA | 119,124.56 | \$558.13 | -\$118,566.43 |
| MARGOS | 137,710.51 | \$5,336.78 | -\$132,373.73 |
| QUISQUI (KICHKI) | 277,395.83 | \$190.27 | -\$277,205.56 |
| SAN FRANCISCO DE CAYRAN | 159,880.04 | \$72.79 | -\$159,807.25 |
| SANTA MARIA DEL VALLE | 195,927.70 | \$741.90 | -\$195,185.80 |
| PILLCO MARCA | 57,970.87 | \$2,514.14 | -\$55,456.73 |
| AMBO | 5,827,153.77 | \$9,421.86 | -\$5,817,731.91 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|------------------------|---------------|----------------|------------------|
| Municipios | | | |
| HUACAR | 207,432.74 | \$4,182.63 | -\$203,250.11 |
| SAN FRANCISCO | 84,390.39 | \$559.03 | -\$83,831.36 |
| SAN RAFAEL | 2,207,500.30 | \$3,343.78 | -\$2,204,156.52 |
| LA UNION | 460,668.66 | \$2,739.29 | -\$457,929.37 |
| CHUQUIS | 121,054.86 | \$304.13 | -\$120,750.73 |
| MARIAS | 139,326.51 | \$1,878.39 | -\$137,448.12 |
| PACHAS | 180,285.82 | \$2,579.67 | -\$177,706.14 |
| RIPAN | 403,421.08 | \$13,543.63 | -\$389,877.45 |
| SHUNQUI | 237,755.14 | \$3,057.62 | -\$234,697.52 |
| SILLAPATA | 286,162.84 | \$7,400.76 | -\$278,762.08 |
| HUACAYBAMBA | 230,803.27 | \$5,413.04 | -\$225,390.23 |
| PINRA | 231,244.41 | \$6,067.21 | -\$225,177.20 |
| LLATA | 1,065,837.94 | \$28,240.51 | -\$1,037,597.43 |
| JACAS GRANDE | 199,385.00 | \$980.50 | -\$198,404.50 |
| MONZON | 1,096,887.85 | \$23,777.01 | -\$1,073,110.84 |
| SINGA | 77,262.07 | \$2,641.29 | -\$74,620.79 |
| RUPA-RUPA | 57,853.38 | \$14,738.41 | -\$43,114.97 |
| JOSE CRESPO Y CASTILLO | 1,706,854.95 | \$40,330.98 | -\$1,666,523.96 |
| LUYANDO | 1,153,042.34 | \$57,068.74 | -\$1,095,973.60 |
| MARIANO DAMASO BERAUN | 2,803.66 | \$33,840.95 | \$31,037.29 |
| PUEBLO NUEVO | 1,605,358.97 | \$88,577.07 | -\$1,516,781.91 |
| HUACRACHUCO | 402,335.78 | \$2,030.91 | -\$400,304.87 |
| CHOLON | 2,180,184.18 | \$60,067.16 | -\$2,120,117.02 |
| SAN BUENAVENTURA | 108,081.24 | \$235.12 | -\$107,846.12 |
| PANAO | 1,186,517.17 | \$95,541.57 | -\$1,090,975.61 |
| CHAGLLA | 327,599.21 | \$16,262.53 | -\$311,336.68 |
| MOLINO | 146,914.32 | \$466.92 | -\$146,447.40 |
| UMARI | 89,463.58 | \$12,810.94 | -\$76,652.64 |
| PUERTO INCA | 21,546,921.75 | \$459,800.22 | -\$21,087,121.53 |
| CODO DEL POZUZO | 53,709,435.85 | \$1,564,019.44 | -\$52,145,416.41 |
| HONORIA | 8,683,302.81 | \$411,248.65 | -\$8,272,054.16 |
| TOURNAVISTA | 75,104,301.11 | \$855,425.10 | -\$74,248,876.01 |
| YUYAPICHIS | 6,799,287.49 | \$205,163.45 | -\$6,594,124.04 |
| BAÑOS | 648,772.26 | \$8,722.69 | -\$640,049.57 |
| RONDOS | 1,458,898.36 | \$23,115.14 | -\$1,435,783.22 |
| SAN MIGUEL DE CAURI | 984,013.23 | \$18,462.72 | -\$965,550.51 |
| CAHUAC | 172,358.57 | \$7,009.65 | -\$165,348.92 |
| CHACABAMBA | 101,734.06 | \$4,149.86 | -\$97,584.20 |
| APARICIO POMARES | 299,388.91 | \$3,689.74 | -\$295,699.17 |
| OBAS | 272,128.94 | \$4,645.32 | -\$267,483.63 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------------|---------------|--------------|------------------|
| Municipios | | | |
| CHORAS | 164,850.98 | \$22,749.39 | -\$142,101.59 |
| ICA | 1,080,357.36 | \$412,138.54 | -\$668,218.82 |
| OCUCAJE | 915,091.41 | \$130.02 | -\$914,961.39 |
| PARCONA | 107,549.43 | \$3,633.26 | -\$103,916.17 |
| SALAS | 20,358,494.50 | \$299,485.17 | -\$20,059,009.33 |
| YAUCA DEL ROSARIO | 179,207.52 | \$59.65 | -\$179,147.87 |
| CHINCHA ALTA | 2,225.13 | \$134,820.18 | \$132,595.05 |
| ALTO LARAN | 1,011,025.64 | \$647,818.49 | -\$363,207.15 |
| CHAVIN | 278,472.79 | \$1,000.73 | -\$277,472.06 |
| CHINCHA BAJA | 1,886,678.61 | \$49,739.10 | -\$1,836,939.50 |
| GROCIO PRADO | 1,369,372.15 | \$13,529.89 | -\$1,355,842.26 |
| SAN JUAN DE YANAC | 287,840.59 | \$4,322.16 | -\$283,518.43 |
| SAN PEDRO DE HUACARPANA | 63,304.95 | \$3,429.70 | -\$59,875.25 |
| TAMBO DE MORA | 294,175.53 | \$7,843.97 | -\$286,331.56 |
| NASCA | 808,087.09 | \$12,952.88 | -\$795,134.20 |
| CHANGUILLO | 174,881.87 | \$46.81 | -\$174,835.05 |
| LLIPATA | 104,914.88 | \$2,897.85 | -\$102,017.03 |
| HUANCANO | 798,812.77 | \$647.22 | -\$798,165.55 |
| HUMAY | 5,237,281.79 | \$904.84 | -\$5,236,376.94 |
| PARACAS | 2,551,805.79 | \$59.65 | -\$2,551,746.14 |
| SAN ANDRES | 6,265,198.41 | \$334,305.11 | -\$5,930,893.30 |
| SAN CLEMENTE | 1,396,558.32 | \$282,996.28 | -\$1,113,562.04 |
| TUPAC AMARU INCA | 343,704.71 | \$2,842.43 | -\$340,862.28 |
| HUANCAYO | 19,631.43 | \$2,723.58 | -\$16,907.85 |
| CARHUACALLANGA | 28,427.59 | \$7,909.51 | -\$20,518.08 |
| CHICCHE | 6,257,065.56 | \$133,633.85 | -\$6,123,431.71 |
| CHILCA | 172,336.32 | \$748,779.29 | \$576,442.98 |
| CHONGOS ALTO | 4,548,712.88 | \$46,741.29 | -\$4,501,971.59 |
| CHUPURO | 29,707.49 | \$17,098.82 | -\$12,608.67 |
| EL TAMBO | 363,519.71 | \$9,734.90 | -\$353,784.81 |
| HUACRAPUQUIO | 37,101.82 | \$5,286.65 | -\$31,815.17 |
| HUANCAN | 482,187.01 | \$383.56 | -\$481,803.44 |
| HUASICANCHA | 255,889.95 | \$12,660.53 | -\$243,229.42 |
| HUAYUCACHI | 24,258.81 | \$1,559.31 | -\$22,699.50 |
| INGENIO | 22,110.00 | \$2,183.28 | -\$19,926.73 |
| PILCOMAYO | 41,619.48 | \$1,228.00 | -\$40,391.48 |
| SAN AGUSTIN | 39,607.31 | \$20,546.79 | -\$19,060.53 |
| SANTO DOMINGO DE ACOBAMBA | 465,009.45 | \$19,446.54 | -\$445,562.91 |
| ANDAMARCA | 84,043.29 | \$10,803.28 | -\$73,240.01 |
| CHAMBARA | 917,209.26 | \$21,905.86 | -\$895,303.40 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------|--------------|--------------|-----------------|
| Municipios | | | |
| COMAS | 118,824.48 | \$347,737.60 | \$228,913.12 |
| HEROINAS TOLEDO | 154,263.12 | \$6,104.96 | -\$148,158.16 |
| MITO | 464,828.90 | \$1,849.55 | -\$462,979.35 |
| NUEVE DE JULIO | 85,273.43 | \$314.25 | -\$84,959.18 |
| ORCOTUNA | 104,022.16 | \$14,080.61 | -\$89,941.54 |
| SAN JOSE DE QUERO | 221,312.36 | \$12,322.73 | -\$208,989.63 |
| SANTA ROSA DE OCOPA | 6,675.39 | \$51,841.14 | \$45,165.75 |
| PERENE | 1,390,361.35 | \$60,576.06 | -\$1,329,785.30 |
| PICHANAQUI | 2,115,529.00 | \$97,054.37 | -\$2,018,474.63 |
| SAN LUIS DE SHUARO | 315,396.60 | \$24,702.38 | -\$290,694.22 |
| SAN RAMON | 1,703,795.40 | \$104,676.36 | -\$1,599,119.04 |
| APATA | 802,100.73 | \$19,299.16 | -\$782,801.57 |
| ATAURA | 5,340.31 | \$5,790.56 | \$450.25 |
| CURICACA | 91,871.81 | \$4,678.39 | -\$87,193.43 |
| EL MANTARO | 351,570.54 | \$112,286.72 | -\$239,283.82 |
| HUERTAS | 66,395.88 | \$2,081.50 | -\$64,314.38 |
| JANJAILLO | 73,901.82 | \$4,996.11 | -\$68,905.71 |
| JULCAN | 993,542.57 | \$11,311.42 | -\$982,231.15 |
| MASMA | 72,194.34 | \$9,958.09 | -\$62,236.25 |
| MASMA CHICCHE | 28,168.81 | \$2,924.27 | -\$25,244.54 |
| MUQUIYAUYO | 21,512.11 | \$647.52 | -\$20,864.59 |
| PARCO | 88,987.20 | \$10,609.84 | -\$78,377.36 |
| POMACANCHA | 153,035.54 | \$23,103.66 | -\$129,931.88 |
| RICRAN | 68,977.47 | \$1,659.28 | -\$67,318.20 |
| SAN LORENZO | 238,088.91 | \$66,141.62 | -\$171,947.29 |
| ULCUMAYO | 444,638.83 | \$52,930.21 | -\$391,708.62 |
| MAZAMARI | 2,665,872.62 | \$273,543.61 | -\$2,392,329.01 |
| PAMPA HERMOSA | 4,583,632.07 | \$82,794.05 | -\$4,500,838.01 |
| RIO NEGRO | 1,513,789.32 | \$71,945.92 | -\$1,441,843.39 |
| TARMA | 38,127.87 | \$100.87 | -\$38,027.00 |
| HUARICOLCA | 792,708.13 | \$4,948.09 | -\$787,760.04 |
| HUASAHUASI | 461,250.67 | \$930.81 | -\$460,319.85 |
| PALCAMAYO | 371,025.38 | \$5,870.60 | -\$365,154.79 |
| SAN PEDRO DE CAJAS | 1,130,835.99 | \$17,252.09 | -\$1,113,583.90 |
| HUAY-HUAY | 4,505,888.25 | \$19,519.18 | -\$4,486,369.07 |
| CHUPACA | 237,980.29 | \$1,934.11 | -\$236,046.17 |
| AHUAC | 97,644.71 | \$695.39 | -\$96,949.32 |
| CHONGOS BAJO | 124,347.83 | \$1,428.84 | -\$122,918.99 |
| HUACHAC | 62,498.38 | \$14,355.60 | -\$48,142.78 |
| SAN JUAN DE ISCOS | 27,405.81 | \$15.86 | -\$27,389.96 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------|---------------|--------------|------------------|
| Municipios | | | |
| SAN JUAN DE JARPA | 20,052.43 | \$784.03 | -\$19,268.39 |
| TRES DE DICIEMBRE | 35,209.34 | \$2,227.37 | -\$32,981.97 |
| YANACANCHA | 6,633,991.24 | \$182,463.28 | -\$6,451,527.95 |
| HUANCHACO | 395,318.81 | \$374,949.28 | -\$20,369.53 |
| LAREDO | 327,530.23 | \$1,832.49 | -\$325,697.75 |
| MOCHE | 87,544.41 | \$234,589.52 | \$147,045.12 |
| SALAVERRY | 26,910,677.72 | \$17,680.05 | -\$26,892,997.67 |
| MAGDALENA DE CAO | 360,197.36 | \$66.44 | -\$360,130.92 |
| PAIJAN | 410,826.86 | \$371,352.72 | -\$39,474.14 |
| CONDORMARCA | 220,676.38 | \$1,434.43 | -\$219,241.95 |
| CALAMARCA | 753,324.45 | \$21,021.86 | -\$732,302.59 |
| OTUZCO | 378,473.92 | \$27,968.39 | -\$350,505.53 |
| AGALLPAMPA | 81,593.29 | \$2,683.11 | -\$78,910.18 |
| CHARAT | 82,209.43 | \$5,209.03 | -\$77,000.40 |
| HUARANCHAL | 565,514.31 | \$1,256.84 | -\$564,257.46 |
| MACHE | 258,248.59 | \$4,079.04 | -\$254,169.56 |
| PARANDAY | 139,397.71 | \$397.91 | -\$138,999.81 |
| SALPO | 232,296.90 | \$2,663.63 | -\$229,633.26 |
| SINSICAP | 219,750.05 | \$139.08 | -\$219,610.98 |
| USQUIL | 591,419.53 | \$21,950.26 | -\$569,469.27 |
| SAN PEDRO DE LLOC | 465,815.37 | \$287,796.38 | -\$178,018.99 |
| GUADALUPE | 804,838.41 | \$71.88 | -\$804,766.53 |
| SAN JOSE | 5,027,857.02 | \$41,741.85 | -\$4,986,115.17 |
| TAYABAMBA | 55,850.76 | \$1,731.01 | -\$54,119.75 |
| CHILLIA | 265,696.10 | \$3,161.36 | -\$262,534.74 |
| HUAYO | 265,980.91 | \$6,018.43 | -\$259,962.48 |
| SANTIAGO DE CHALLAS | 28,359.28 | \$1,436.99 | -\$26,922.29 |
| TAURIJA | 32,546.31 | \$2,228.73 | -\$30,317.58 |
| HUAMACHUCO | 1,090,948.53 | \$32,488.82 | -\$1,058,459.71 |
| CHUGAY | 115,484.24 | \$6,249.48 | -\$109,234.77 |
| COCHORCO | 565,583.53 | \$2,855.57 | -\$562,727.96 |
| CURGOS | 474,831.61 | \$16,701.82 | -\$458,129.80 |
| MARCABAL | 276,881.83 | \$9,800.44 | -\$267,081.39 |
| SANAGORAN | 434,287.52 | \$5,729.25 | -\$428,558.27 |
| SARIN | 5,916,571.72 | \$11,099.11 | -\$5,905,472.62 |
| SARTIMBAMBA | 572,788.52 | \$9,526.66 | -\$563,261.86 |
| SANTIAGO DE CHUCO | 196,381.08 | \$1,070.20 | -\$195,310.88 |
| ANGASMARCA | 179,883.96 | \$4,308.42 | -\$175,575.54 |
| CACHICADAN | 587,205.13 | \$1,682.38 | -\$585,522.75 |
| MOLLEBAMBA | 67,470.39 | \$188.16 | -\$67,282.24 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-----------------------------|---------------|----------------|------------------|
| Municipios | | | |
| QUIRUVILCA | 287,504.60 | \$1,931.85 | -\$285,572.75 |
| SITABAMBA | 187,565.11 | \$2,578.01 | -\$184,987.09 |
| CASCAS | 269,752.95 | \$43.79 | -\$269,709.16 |
| MARMOT | 60,303.69 | \$57.38 | -\$60,246.31 |
| SAYAPULLO | 263,962.72 | \$372.69 | -\$263,590.03 |
| VIRU | 1,088,230.98 | \$24,028.43 | -\$1,064,202.55 |
| CHAO | 1,935,763.17 | \$43,463.95 | -\$1,892,299.21 |
| CHICLAYO | 744,185.83 | \$20,161.87 | -\$724,023.96 |
| LA VICTORIA | 244,047.81 | \$506,394.58 | \$262,346.77 |
| LAGUNAS | 5,329,958.48 | \$13,172.45 | -\$5,316,786.03 |
| MONSEFU | 202,849.53 | \$154,669.31 | -\$48,180.22 |
| PIMENTEL | 540,152.54 | \$125,624.23 | -\$414,528.31 |
| REQUE | 687,816.62 | \$474,467.96 | -\$213,348.66 |
| POMALCA | 216,881.19 | \$109,248.44 | -\$107,632.76 |
| TUMAN | 299,972.00 | \$14,906.18 | -\$285,065.82 |
| CAÑARIS | 1,347,854.70 | \$32,881.29 | -\$1,314,973.41 |
| INCAHUASI | 1,420,941.32 | \$10,934.51 | -\$1,410,006.81 |
| MANUEL ANTONIO MESONES MURO | 1,130,185.83 | \$198.58 | -\$1,129,987.25 |
| PITIPO | 1,886,678.83 | \$3,059.43 | -\$1,883,619.40 |
| LAMBAYEQUE | 1,051,901.28 | \$256,239.42 | -\$795,661.86 |
| ILLIMO | 177,498.62 | \$13.59 | -\$177,485.03 |
| JAYANCA | 3,641,060.33 | \$2,417.34 | -\$3,638,642.99 |
| MORROPE | 1,884,364.69 | \$177,746.39 | -\$1,706,618.30 |
| MOTUPE | 2,051,309.52 | \$16,195.94 | -\$2,035,113.58 |
| OLMOS | 2,133,966.44 | \$740.39 | -\$2,133,226.04 |
| PACORA | 660,903.67 | \$80.79 | -\$660,822.88 |
| CARABAYLLO | 343,557.86 | \$471,070.27 | \$127,512.41 |
| LURIGANCHO | 1,668.85 | \$565,434.33 | \$563,765.48 |
| LURIN | 192,198.95 | \$1,272,292.92 | \$1,080,093.98 |
| PACHACAMAC | 419,717.10 | \$615,412.42 | \$195,695.32 |
| PUENTE PIEDRA | 8,900.52 | \$155,747.66 | \$146,847.14 |
| PUNTA HERMOSA | 71,204.16 | \$178,310.55 | \$107,106.39 |
| SANTIAGO DE SURCO | 21,061.58 | \$3,649.57 | -\$17,412.01 |
| VILLA EL SALVADOR | 1,557.59 | \$119,270.10 | \$117,712.51 |
| BARRANCA | 3,171,847.16 | \$20,882.48 | -\$3,150,964.68 |
| PARAMONGA | 142,541.83 | \$538,622.31 | \$396,080.48 |
| PATIVILCA | 48,601,113.67 | \$3,842.10 | -\$48,597,271.57 |
| SUPE | 1,245,970.44 | \$6,161.29 | -\$1,239,809.16 |
| SUPE PUERTO | 137,165.91 | \$38,568.72 | -\$98,597.20 |
| GORGOR | 214,253.32 | \$6,500.91 | -\$207,752.41 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|--------------------------|---------------|----------------|------------------|
| Municipios | | | |
| MANAS | 229,466.51 | \$1,200.52 | -\$228,265.99 |
| CANTA | 115,415.27 | \$2,669.83 | -\$112,745.44 |
| ARAHUAY | 52,246.05 | \$69.46 | -\$52,176.59 |
| HUAROS | 20,669.23 | \$12,606.92 | -\$8,062.31 |
| SANTA ROSA DE QUIVES | 274,825.81 | \$99,256.07 | -\$175,569.74 |
| SAN VICENTE DE CAÑETE | 708,278.46 | \$432,034.63 | -\$276,243.82 |
| CERRO AZUL | 1,863,170.32 | \$457,300.88 | -\$1,405,869.44 |
| IMPERIAL | 808,251.10 | \$40,832.63 | -\$767,418.46 |
| MALA | 376,958.83 | \$89,110.73 | -\$287,848.10 |
| NUEVO IMPERIAL | 349,198.33 | \$620,264.32 | \$271,065.99 |
| QUILMANA | 1,302,525.44 | \$858,736.87 | -\$443,788.58 |
| HUARAL | 1,921,034.14 | \$951,244.73 | -\$969,789.42 |
| AUCALLAMA | 909,838.76 | \$472,419.68 | -\$437,419.08 |
| IHUARI | 329,833.24 | \$379.79 | -\$329,453.45 |
| PACARAOS | 19,512.16 | \$4,343.90 | -\$15,168.26 |
| SANTA CRUZ DE ANDAMARCA | 43,581.40 | \$26,664.13 | -\$16,917.26 |
| VEINTISIETE DE NOVIEMBRE | 46,180.35 | \$2,174.52 | -\$44,005.83 |
| ANTIOQUIA | 123,037.01 | \$14,134.37 | -\$108,902.63 |
| HUAROCHIRI | 181,964.01 | \$13,463.75 | -\$168,500.26 |
| LANGA | 31,499.83 | \$135.91 | -\$31,363.92 |
| MARIATANA | 164,670.75 | \$42.28 | -\$164,628.47 |
| SAN PEDRO DE CASTA | 57,160.26 | \$966.45 | -\$56,193.80 |
| SAN PEDRO DE HUANCAYRE | 65,298.89 | \$457.25 | -\$64,841.64 |
| HUACHO | 12,014,068.73 | \$2,084,449.48 | -\$9,929,619.25 |
| SANTA MARIA | 3,076,916.44 | \$112,808.91 | -\$2,964,107.53 |
| SAYAN | 2,052,646.82 | \$371,138.44 | -\$1,681,508.38 |
| VEGUETA | 938,148.19 | \$656,533.99 | -\$281,614.20 |
| ANDAJES | 31,774.86 | \$3,355.40 | -\$28,419.45 |
| ALLAUCA | 154,616.06 | \$434.90 | -\$154,181.15 |
| AYAVIRI | 5,576,803.27 | \$59,366.78 | -\$5,517,436.48 |
| AZANGARO | 1,140,590.51 | \$24,984.01 | -\$1,115,606.50 |
| LARAOS | 10,389.35 | \$813.63 | -\$9,575.72 |
| SAN PEDRO DE PILAS | 46,993.41 | \$981.55 | -\$46,011.86 |
| TOMAS | 2,851.73 | \$8,163.51 | \$5,311.78 |
| VITIS | 47,624.01 | \$4,729.13 | -\$42,894.89 |
| IQUITOS | 325,520.95 | \$5,330.44 | -\$320,190.51 |
| FERNANDO LORES | 13,525,252.47 | \$98,888.97 | -\$13,426,363.50 |
| INDIANA | 1,974,095.28 | \$43,939.93 | -\$1,930,155.35 |
| LAS AMAZONAS | 167,385.40 | \$9,866.43 | -\$157,518.98 |
| MAZAN | 765,564.88 | \$12,622.03 | -\$752,942.85 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|----------------------------|---------------|--------------|------------------|
| Municipios | | | |
| NAPO | 1,389,451.29 | \$28,716.49 | -\$1,360,734.81 |
| PUNCHANA | 1,376,247.36 | \$37,862.15 | -\$1,338,385.21 |
| PUTUMAYO | 134,847.33 | \$5,566.16 | -\$129,281.17 |
| TORRES CAUSANA | 42,822.63 | \$3,630.69 | -\$39,191.94 |
| TENIENTE MANUEL CLAVERO | 768,602.18 | \$21,096.76 | -\$747,505.42 |
| YURIMAGUAS | 9,815,769.39 | \$216,646.42 | -\$9,599,122.98 |
| BALSAPUERTO | 312,274.74 | \$4,459.88 | -\$307,814.87 |
| TENIENTE CESAR LOPEZ ROJAS | 3,632,415.69 | \$49,024.53 | -\$3,583,391.16 |
| NAUTA | 533,561.69 | \$18,259.92 | -\$515,301.77 |
| PARINARI | 564,840.35 | \$23,851.91 | -\$540,988.45 |
| TROMPETEROS | 466,676.49 | \$21,950.11 | -\$444,726.39 |
| URARINAS | 254,018.62 | \$13,766.97 | -\$240,251.65 |
| RAMON CASTILLA | 542,718.11 | \$27,580.45 | -\$515,137.66 |
| PEBAS | 299,108.65 | \$9,887.42 | -\$289,221.24 |
| REQUENA | 190,451.10 | \$18,454.42 | -\$171,996.68 |
| CAPELO | 1,067,515.02 | \$51,435.68 | -\$1,016,079.34 |
| EMILIO SAN MARTIN | 1,244,561.94 | \$38,678.05 | -\$1,205,883.89 |
| MAQUIA | 269,556.70 | \$6,412.41 | -\$263,144.29 |
| SAQUENA | 646,355.74 | \$7,933.97 | -\$638,421.77 |
| JENARO HERRERA | 522,384.85 | \$12,277.88 | -\$510,106.97 |
| CONTAMANA | 2,476,615.92 | \$193,263.24 | -\$2,283,352.68 |
| PADRE MARQUEZ | 159,575.20 | \$8,324.78 | -\$151,250.41 |
| SARAYACU | 1,916,301.98 | \$20,447.27 | -\$1,895,854.71 |
| VARGAS GUERRA | 1,261,633.13 | \$39,819.37 | -\$1,221,813.77 |
| CAHUAPANAS | 430,006.38 | \$23,407.94 | -\$406,598.44 |
| MANSERICHE | 1,090,649.69 | \$23,045.82 | -\$1,067,603.87 |
| MORONA | 485,552.29 | \$25,634.26 | -\$459,918.04 |
| PASTAZA | 816,515.92 | \$29,392.25 | -\$787,123.68 |
| ANDOAS | 417,336.48 | \$5,494.44 | -\$411,842.05 |
| TAMBOPATA | 36,145,028.59 | \$744,418.48 | -\$35,400,610.11 |
| INAMBARI | 14,120,579.32 | \$190,581.03 | -\$13,929,998.29 |
| LAS PIEDRAS | 50,219,642.13 | \$909,109.75 | -\$49,310,532.38 |
| LABERINTO | 16,826,608.87 | \$269,715.10 | -\$16,556,893.77 |
| MANU | 7,779,147.89 | \$186,845.09 | -\$7,592,302.80 |
| FITZCARRALD | 3,135,630.96 | \$54,310.57 | -\$3,081,320.38 |
| MADRE DE DIOS | 9,385,082.09 | \$222,532.87 | -\$9,162,549.22 |
| HUEPETUHE | 2,308,452.24 | \$13,234.97 | -\$2,295,217.27 |
| ÑAPARI | 11,327,571.62 | \$299,800.48 | -\$11,027,771.15 |
| IBERIA | 27,813,421.41 | \$224,132.05 | -\$27,589,289.37 |
| TAHUAMANU | 24,223,187.93 | \$169,111.13 | -\$24,054,076.80 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|-------------------------------------|---------------|----------------|------------------|
| Municipios | | | |
| MOQUEGUA | 2,231,431.35 | \$11,211.76 | -\$2,220,219.59 |
| CARUMAS | 14,524,672.91 | \$35,198.06 | -\$14,489,474.85 |
| CUCHUMBAYA | 308,598.50 | \$760.93 | -\$307,837.56 |
| TORATA | 932,475.21 | \$13,241.61 | -\$919,233.60 |
| OMATE | 465,241.31 | \$132.13 | -\$465,109.18 |
| CHOJATA | 30,037.92 | \$286.92 | -\$29,751.00 |
| COALAUQUE | 334,851.00 | \$86.83 | -\$334,764.17 |
| ICHUÑA | 42,550.18 | \$1,952.39 | -\$40,597.79 |
| LA CAPILLA | 238,419.52 | \$15,456.60 | -\$222,962.92 |
| LLOQUE | 5,073.07 | \$73.84 | -\$4,999.23 |
| MATALAUQUE | 46,828.75 | \$1,632.10 | -\$45,196.65 |
| PUQUINA | 576,068.50 | \$11,024.06 | -\$565,044.44 |
| UBINAS | 1,211,755.70 | \$26,061.61 | -\$1,185,694.09 |
| ILO | 205,390.62 | \$6,466.93 | -\$198,923.70 |
| HUACHON | 646,745.41 | \$26,047.26 | -\$620,698.15 |
| HUARIACA | 113,069.66 | \$8,563.83 | -\$104,505.83 |
| HUAYLLAY | 27,067,148.86 | \$23,634.00 | -\$27,043,514.86 |
| NINACACA | 3,682,275.75 | \$39,694.03 | -\$3,642,581.72 |
| PALLANCHACRA | 276,974.41 | \$19,304.75 | -\$257,669.66 |
| SAN FRANCISCO DE ASIS DE YARUSYACAN | 330,112.72 | \$21,495.57 | -\$308,617.15 |
| SIMON BOLIVAR | 53,779,166.97 | \$268,469.58 | -\$53,510,697.39 |
| TICLACAYAN | 1,423,206.26 | \$37,068.75 | -\$1,386,137.50 |
| VICCO | 22,270,169.10 | \$122,278.34 | -\$22,147,890.76 |
| YANAHUANCA | 5,566,028.74 | \$34,404.21 | -\$5,531,624.53 |
| CHACAYAN | 50,250.11 | \$1,923.85 | -\$48,326.26 |
| GOYLLARISQUIZGA | 162,494.57 | \$6,770.91 | -\$155,723.66 |
| PAUCAR | 92,681.34 | \$6,408.49 | -\$86,272.85 |
| SAN PEDRO DE PILLAO | 131,131.14 | \$4,868.20 | -\$126,262.93 |
| SANTA ANA DE TUSI | 642,440.20 | \$21,971.10 | -\$620,469.10 |
| TAPUC | 55,109.79 | \$5,496.10 | -\$49,613.70 |
| CHONTABAMBA | 2,539,101.85 | \$77,296.15 | -\$2,461,805.71 |
| HUANCABAMBA | 2,604,178.66 | \$192,605.75 | -\$2,411,572.91 |
| PALCAZU | 41,066,690.21 | \$851,974.72 | -\$40,214,715.50 |
| POZUZO | 22,674,983.22 | \$638,111.68 | -\$22,036,871.54 |
| PUERTO BERMUDEZ | 5,425,278.59 | \$163,859.97 | -\$5,261,418.62 |
| VILLA RICA | 16,588,820.11 | \$1,157,997.49 | -\$15,430,822.62 |
| CONSTITUCION | 17,823,912.11 | \$491,492.78 | -\$17,332,419.33 |
| CASTILLA | 1,504,466.02 | \$2,538.45 | -\$1,501,927.57 |
| CATACAOS | 462,261.86 | \$21.75 | -\$462,240.11 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|--------------------------|--------------|--------------|-----------------|
| Municipios | | | |
| CURA MORI | 17,409.42 | \$329.05 | -\$17,080.37 |
| EL TALLAN | 23,363.87 | \$391.87 | -\$22,972.00 |
| LA ARENA | 258,328.69 | \$2,535.58 | -\$255,793.11 |
| AYABACA | 1,052,546.59 | \$23,120.57 | -\$1,029,426.02 |
| FRIAS | 407,051.93 | \$690.86 | -\$406,361.07 |
| PACAI PAMPA | 289,983.39 | \$11,949.13 | -\$278,034.26 |
| PAIMAS | 351,305.75 | \$4,422.88 | -\$346,882.87 |
| SAPILLICA | 125,417.23 | \$5,474.50 | -\$119,942.72 |
| SUYO | 578,551.60 | \$4,895.84 | -\$573,655.76 |
| EL CARMEN DE LA FRONTERA | 138,374.16 | \$7,989.24 | -\$130,384.92 |
| HUARMACA | 874,344.82 | \$27,385.20 | -\$846,959.62 |
| LALQUIZ | 107,273.52 | \$1,638.44 | -\$105,635.08 |
| SAN MIGUEL DE EL FAIQUE | 250,233.68 | \$84.56 | -\$250,149.11 |
| SONDOR | 478,138.16 | \$8,947.09 | -\$469,191.07 |
| SONDORILLO | 166,243.91 | \$2,304.84 | -\$163,939.07 |
| CHULUCANAS | 236,788.04 | \$9.06 | -\$236,778.98 |
| BUENOS AIRES | 200,377.41 | \$47.57 | -\$200,329.84 |
| CHALACO | 115,731.24 | \$843.38 | -\$114,887.86 |
| LA MATANZA | 381,988.07 | \$4,215.55 | -\$377,772.52 |
| MORROPON | 311,093.20 | \$2,785.05 | -\$308,308.15 |
| SANTA CATALINA DE MOSSA | 38,283.36 | \$2,552.49 | -\$35,730.87 |
| YAMANGO | 169,310.14 | \$708.83 | -\$168,601.31 |
| COLAN | 236,976.35 | \$114,862.47 | -\$122,113.87 |
| LA HUACA | 166,137.11 | \$556.31 | -\$165,580.79 |
| TAMARINDO | 160,921.40 | \$42.89 | -\$160,878.52 |
| SULLANA | 2,969,017.46 | \$3,352.84 | -\$2,965,664.63 |
| IGNACIO ESCUDERO | 1,167,636.97 | \$1,411.93 | -\$1,166,225.04 |
| MARCAVELICA | 1,646,286.35 | \$109.18 | -\$1,646,177.17 |
| QUERECOTILLO | 137,535.84 | \$14.50 | -\$137,521.35 |
| CRISTO NOS VALGA | 230,857.24 | \$11,084.46 | -\$219,772.78 |
| VICE | 328,004.19 | \$215.94 | -\$327,788.25 |
| RINCONADA LLICUAR | 77,714.89 | \$47.57 | -\$77,667.32 |
| PUNO | 136,427.17 | \$3,828.21 | -\$132,598.96 |
| ACORA | 2,261,141.95 | \$28,306.80 | -\$2,232,835.15 |
| AMANTANI | 10,859.08 | \$1,557.35 | -\$9,301.73 |
| ATUNCOLLA | 324,271.75 | \$13,882.79 | -\$310,388.96 |
| CAPACHICA | 40,496.25 | \$6,515.70 | -\$33,980.55 |
| CHUCUITO | 8,017.14 | \$1,471.27 | -\$6,545.87 |
| COATA | 149,187.84 | \$9,096.44 | -\$140,091.41 |
| MAÑAZO | 379,089.61 | \$3,895.71 | -\$375,193.90 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------------|---------------|--------------|------------------|
| Municipios | | | |
| PAUCARCOLLA | 2,280,622.52 | \$80,407.37 | -\$2,200,215.15 |
| PICHACANI | 1,789,994.70 | \$11,043.84 | -\$1,778,950.86 |
| ACHAYA | 195,099.40 | \$9,114.41 | -\$185,984.99 |
| ARAPA | 499,419.31 | \$27,123.95 | -\$472,295.35 |
| ASILLO | 290,601.98 | \$0.00 | -\$290,601.98 |
| CAMINACA | 265,235.50 | \$9,030.90 | -\$256,204.60 |
| CHUPA | 621,723.57 | \$20,120.34 | -\$601,603.23 |
| JOSE DOMINGO CHOQUEHUANCA | 160,885.80 | \$4,059.56 | -\$156,826.24 |
| POTONI | 2,949,298.56 | \$12,607.83 | -\$2,936,690.73 |
| SAMAN | 223,325.62 | \$31,409.42 | -\$191,916.20 |
| SAN ANTON | 235,180.67 | \$2,964.44 | -\$232,216.22 |
| CRUCERO | 2,131,819.17 | \$12,024.79 | -\$2,119,794.39 |
| ITUATA | 259,783.93 | \$3,676.30 | -\$256,107.64 |
| OLLACHEA | 157,307.80 | \$10,005.66 | -\$147,302.14 |
| SAN GABAN | 661,965.05 | \$7,317.86 | -\$654,647.19 |
| JULI | 2,639,847.06 | \$26,578.06 | -\$2,613,269.00 |
| DESAGUADERO | 121,708.60 | \$6,970.69 | -\$114,737.91 |
| KELLUYO | 773,416.25 | \$19,855.47 | -\$753,560.78 |
| PISACOMA | 668,506.93 | \$3,898.13 | -\$664,608.80 |
| POMATA | 225,939.93 | \$22,043.13 | -\$203,896.80 |
| ZEPITA | 29,765.56 | \$3,526.04 | -\$26,239.52 |
| ILAVE | 241,398.57 | \$25,113.28 | -\$216,285.29 |
| CAPAZO | 3,313,886.11 | \$5,382.99 | -\$3,308,503.12 |
| CONDURIRI | 3,355,097.74 | \$19,007.26 | -\$3,336,090.48 |
| HUANCANE | 448,181.24 | \$43,519.67 | -\$404,661.56 |
| PUSI | 180,469.17 | \$9,688.99 | -\$170,780.17 |
| ROSASPATA | 116,846.03 | \$7,032.15 | -\$109,813.87 |
| TARACO | 30,715.69 | \$8,119.41 | -\$22,596.28 |
| VILQUE CHICO | 45,112.29 | \$2,611.54 | -\$42,500.75 |
| PARATIA | 2,000,503.13 | \$7,564.61 | -\$1,992,938.52 |
| CUPI | 244,764.30 | \$29,250.90 | -\$215,513.40 |
| LLALLI | 6,037,890.26 | \$64,752.34 | -\$5,973,137.91 |
| MACARI | 545,537.35 | \$24,442.50 | -\$521,094.85 |
| NUÑO A | 2,302,742.53 | \$10,427.42 | -\$2,292,315.11 |
| UMACHIRI | 18,773,421.81 | \$239,353.38 | -\$18,534,068.43 |
| MOHO | 304,696.17 | \$7,391.85 | -\$297,304.32 |
| HUAYRAPATA | 13,489.85 | \$436.56 | -\$13,053.29 |
| PUTINA | 6,916,160.21 | \$23,451.13 | -\$6,892,709.08 |
| JULIACA | 1,717,520.02 | \$33,336.58 | -\$1,684,183.43 |
| CABANILLAS | 13,328,528.70 | \$23,071.34 | -\$13,305,457.36 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------------------|---------------|--------------|------------------|
| Municipios | | | |
| CARACOTO | 644,092.81 | \$33,506.01 | -\$610,586.79 |
| LIMBANI | 374,251.07 | \$6,397.31 | -\$367,853.75 |
| PATAMBUCO | 22,315.83 | \$1,262.88 | -\$21,052.95 |
| PHARA | 72,784.00 | \$3,405.69 | -\$69,378.32 |
| SAN JUAN DEL ORO | 529,251.62 | \$14,372.06 | -\$514,879.56 |
| ALTO INAMBARI | 758,824.96 | \$24,585.50 | -\$734,239.46 |
| SAN PEDRO DE PUTINA PUNCO | 1,670,509.67 | \$70,809.59 | -\$1,599,700.09 |
| YUNGUYO | 33,180.25 | \$21,569.42 | -\$11,610.83 |
| COPANI | 67,552.72 | \$12,194.82 | -\$55,357.90 |
| MOYOBAMBA | 5,454,256.59 | \$244,905.65 | -\$5,209,350.94 |
| JEPELACIO | 1,169,045.48 | \$57,283.02 | -\$1,111,762.46 |
| SORITOR | 665,100.26 | \$20,774.21 | -\$644,326.05 |
| ALTO BIAVO | 4,056,503.22 | \$112,879.43 | -\$3,943,623.79 |
| BAJO BIAVO | 10,246,959.42 | \$166,596.99 | -\$10,080,362.43 |
| AGUA BLANCA | 1,982,868.97 | \$11,596.38 | -\$1,971,272.59 |
| SAN MARTIN | 1,180,771.02 | \$81,481.34 | -\$1,099,289.68 |
| SAPOSOA | 2,990,852.84 | \$50,060.90 | -\$2,940,791.94 |
| PISCOYACU | 2,126,803.73 | \$64,682.27 | -\$2,062,121.46 |
| SACANCHE | 476,464.86 | \$12,585.18 | -\$463,879.68 |
| LAMAS | 322,192.15 | \$10,673.11 | -\$311,519.04 |
| ALONSO DE ALVARADO | 1,046,048.08 | \$53,602.50 | -\$992,445.58 |
| BARRANQUITA | 1,551,629.85 | \$51,645.43 | -\$1,499,984.43 |
| CUÑUMBUQUI | 7,233,606.14 | \$302,081.15 | -\$6,931,524.98 |
| PINTO RECODO | 435,548.06 | \$22,472.29 | -\$413,075.76 |
| RUMISAPA | 302,748.96 | \$17,284.71 | -\$285,464.26 |
| TABALOSOS | 275,444.17 | \$28,791.69 | -\$246,652.48 |
| ZAPATERO | 1,503,409.31 | \$72,930.50 | -\$1,430,478.81 |
| JUANJUI | 2,695,133.08 | \$22,120.14 | -\$2,673,012.94 |
| CAMPANILLA | 1,572,143.35 | \$60,400.13 | -\$1,511,743.22 |
| HUICUNGO | 723,100.50 | \$15,974.11 | -\$707,126.39 |
| PACHIZA | 2,491,171.46 | \$50,956.23 | -\$2,440,215.23 |
| PAJARILLO | 6,547,335.99 | \$48,251.07 | -\$6,499,084.93 |
| PICOTA | 8,190,545.77 | \$19,411.66 | -\$8,171,134.11 |
| SHAMBOYACU | 2,855,833.53 | \$96,662.50 | -\$2,759,171.03 |
| TINGO DE PONASA | 3,092,007.27 | \$94,755.27 | -\$2,997,252.00 |
| RIOJA | 665,004.58 | \$18,915.14 | -\$646,089.43 |
| AWAJUN | 1,035,880.37 | \$14,417.97 | -\$1,021,462.40 |
| ELIAS SOPLIN VARGAS | 1,132,048.24 | \$38,897.16 | -\$1,093,151.08 |
| PARDO MIGUEL | 911,446.62 | \$31,285.74 | -\$880,160.88 |
| ALBERTO LEVEAU | 760,373.65 | \$8,213.19 | -\$752,160.46 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|--------------------------------------|---------------|--------------|------------------|
| Municipios | | | |
| CACATACHI | 211,260.52 | \$934,782.36 | \$723,521.84 |
| CHAZUTA | 1,397,319.34 | \$14,859.51 | -\$1,382,459.82 |
| HUIMBAYOC | 2,435,627.30 | \$18,599.23 | -\$2,417,028.06 |
| JUAN GUERRA | 3,235,761.79 | \$16,569.38 | -\$3,219,192.41 |
| LA BANDA DE SHILCAYO | 1,285,706.82 | \$162,999.98 | -\$1,122,706.84 |
| SAUCE | 154,466.30 | \$7,721.51 | -\$146,744.79 |
| SHAPAJA | 1,549,204.49 | \$51,739.51 | -\$1,497,464.98 |
| TOCACHE | 9,123,934.18 | \$924,262.07 | -\$8,199,672.11 |
| NUEVO PROGRESO | 2,360,471.31 | \$31,851.12 | -\$2,328,620.19 |
| POLVORA | 1,286,009.43 | \$114,119.51 | -\$1,171,889.92 |
| UCHIZA | 2,020,956.52 | \$166,273.84 | -\$1,854,682.68 |
| TACNA | 10,606,321.92 | \$28,693.53 | -\$10,577,628.39 |
| ALTO DE LA ALIANZA | 22,116.24 | \$152,761.77 | \$130,645.53 |
| CALANA | 383,043.45 | \$40,950.42 | -\$342,093.03 |
| CIUDAD NUEVA | 49,104.17 | \$115,901.86 | \$66,797.69 |
| INCLAN | 1,073,038.46 | \$14,055.09 | -\$1,058,983.36 |
| POCOLLAY | 435,977.57 | \$20,060.09 | -\$415,917.48 |
| SAMA | 728,894.73 | \$14,193.42 | -\$714,701.31 |
| CORONEL GREGORIO ALBARRACIN LANCHIPA | 177,046.91 | \$36,433.01 | -\$140,613.91 |
| CANDARAVE | 764,758.02 | \$17,365.04 | -\$747,392.98 |
| CAIRANI | 328,947.62 | \$241.61 | -\$328,706.01 |
| CAMILACA | 83,787.27 | \$9.66 | -\$83,777.60 |
| HUANUARA | 145,061.66 | \$181.21 | -\$144,880.45 |
| QUILAHUANI | 161,962.43 | \$1,360.43 | -\$160,602.00 |
| LOCUMBA | 1,592,374.20 | \$1,065.97 | -\$1,591,308.23 |
| ILABAYA | 548,081.22 | \$12,873.61 | -\$535,207.62 |
| ITE | 384,947.49 | \$166,740.30 | -\$218,207.19 |
| HEROES ALBARRACIN | 193,737.88 | \$55.12 | -\$193,682.76 |
| ESTIQUE | 24,548.15 | \$1,274.81 | -\$23,273.33 |
| SUSAPAYA | 740,297.70 | \$1,428.99 | -\$738,868.71 |
| TUMBES | 3,156,144.39 | \$6,686.80 | -\$3,149,457.59 |
| PAMPAS DE HOSPITAL | 1,031,376.01 | \$5,812.46 | -\$1,025,563.55 |
| SAN JUAN DE LA VIRGEN | 1,114,878.68 | \$2,184.94 | -\$1,112,693.74 |
| ZORRITOS | 78,493.69 | \$13,620.95 | -\$64,872.74 |
| CASITAS | 601,650.71 | \$4,138.38 | -\$597,512.33 |
| CANOAS DE PUNTA SAL | 41,193.83 | \$98.76 | -\$41,095.07 |
| ZARUMILLA | 325,198.30 | \$9,335.18 | -\$315,863.12 |
| AGUAS VERDES | 1,188,566.55 | \$4,130.08 | -\$1,184,436.47 |
| MATAPALO | 555,717.33 | \$588.93 | -\$555,128.40 |

| País: Perú | Costo | Beneficio | Beneficio-costo |
|---------------|---------------|----------------|------------------|
| Municipios | | | |
| PAPAYAL | 2,174,859.87 | \$19,260.50 | -\$2,155,599.37 |
| CALLERIA | 2,530,789.41 | \$100,153.06 | -\$2,430,636.35 |
| CAMPOVERDE | 10,558,388.71 | \$382,105.11 | -\$10,176,283.60 |
| IPARIA | 2,038,933.35 | \$103,703.72 | -\$1,935,229.63 |
| MASISEA | 6,129,823.72 | \$138,352.71 | -\$5,991,471.01 |
| YARINACOCHA | 8,708,208.69 | \$338,297.31 | -\$8,369,911.38 |
| NUEVA REQUENA | 13,934,645.21 | \$438,912.61 | -\$13,495,732.61 |
| MANANTAY | 197,480.29 | \$324,056.18 | \$126,575.89 |
| RAYMONDI | 7,004,902.85 | \$111,418.43 | -\$6,893,484.42 |
| SEPAHUA | 3,239,290.71 | \$85,046.19 | -\$3,154,244.52 |
| TAHUANIA | 1,241,898.46 | \$27,875.22 | -\$1,214,023.24 |
| YURUA | 751,882.55 | \$12,334.05 | -\$739,548.50 |
| PADRE ABAD | 11,649,454.52 | \$434,914.21 | -\$11,214,540.31 |
| IRAZOLA | 33,867,364.18 | \$1,363,743.83 | -\$32,503,620.35 |
| CURIMANA | 9,206,346.34 | \$125,425.35 | -\$9,080,920.99 |
| PURUS | 10,270,760.62 | \$33,435.65 | -\$10,237,324.97 |

