

FINAL REPORT

MID-TERM EVALUATION ECUADOR BORDER REGION DEVELOPMENT PROGRAM ASSA/PSUR

(With Executive Summary in Spanish and English)

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RESUMEN

INTRODUCCIÓN

En octubre de 1998, los presidentes de Ecuador y de Perú firmaron el Acuerdo de Paz que ponía fin a más de siglo y medio de conflicto, con frecuencia sangriento, por la frontera entre ambos países. Los Estados Unidos, en su papel como uno de los cuatro países garantes, ha invertido una importante cantidad de tiempo, esfuerzos y recursos para ayudar a ambas partes a lograr esta paz. Tal y como contempla el acuerdo de paz, los dos gobiernos asumieron el compromiso de facilitar beneficios materiales para el desarrollo a la población que habita en la región fronteriza. Para conseguirlo, ambos gobiernos están trabajando para aplicar el Plan Binacional de Desarrollo de la Región Fronteriza. USAID, en apoyo de estas iniciativas, destinó US\$1,5 millones a la financiación de actividades fronterizas durante el ejercicio de 1999 (1ª fase), con un incremento de US\$20 millones a lo largo de los ejercicios 2000-2005 (2ª fase).

CARE ha sido el principal socio de ejecución en ambas fases. La fase inicial (ASSA) se utilizó para prestar apoyo a los servicios sociales, con especial atención en la salud, el agua y el saneamiento. El diseño de la segunda fase (PSUR) incorporó cuatro componentes: 1) generación de ingresos; 2) servicios sociales; 3) gestión de los recursos naturales; y 4) gobierno local.

USAID/ Ecuador contrató a la empresa Development Associates, Inc para llevar a cabo una evaluación de mediados del periodo del Programa de Desarrollo de la Frontera de Ecuador: ASSA (Agua, Saneamiento y Salud Ambiental, del 20 de julio de 1999 al 28 de febrero de 2001) y PSUR (Programa de Sostenibilidad y Unión Regional, del 30 de octubre de 2000 al 30 de septiembre de 2002). Tan sólo había que someter a evaluación los componentes de servicios sociales, gestión de los recursos naturales y gobierno local, ya que el componente relativo a generación de ingresos ya había sido concluido. Un equipo de tres personas (el Equipo) se desplazó a Quito y a distintos puntos de las provincias de Loja, El Oro y Morona Santiago desde el 31 de mayo hasta el 21 de junio de 2003.

La finalidad de la evaluación consistía en responder a las siguientes preguntas:

1. ¿ Logrará el enfoque del programa brindar beneficios materiales a la población que vive en la frontera?
2. ¿Está el programa progresando de forma aceptable según los planes de trabajo?
3. ¿Son fiables los datos presentados?
4. ¿Qué tal se está gestionando el programa?
5. ¿Deberían realizarse ajustes al diseño o a la gestión del programa?

HALLAZGOS

PSUR es un proyecto muy bueno que está brindando beneficios materiales para el desarrollo a las personas que habitan en la región fronteriza del sur. Es probable que más de la mitad de los 448.000 residentes que viven en los 26 municipios objetivo se beneficien directamente de los efectos del proyecto a lo largo de sus cinco años de duración. Esta cifra abarcaría a la mayoría de los 195.000 habitantes de núcleos urbanos (sin incluir la ciudad de Loja) y a unos 40.000

residentes rurales. Los beneficios indirectos podrían elevar todavía más el número de beneficiarios rurales.

- ▶ El componente correspondiente a los servicios sociales debería proporcionar agua y saneamiento de mejor calidad a más de 35.000 miembros de las comunidades pobres del entorno rural y a 16.000 residentes en núcleos urbanos. Las mejoras en la recogida de basuras deberían alcanzar a la mayoría de los 195.000 residentes urbanos;
- ▶ El componente relativo a los recursos naturales podría reducir considerablemente las amenazas que se ciernen sobre la biodiversidad de la Cordillera Kutucú al adjudicar títulos de propiedad de la tierra comunal para más de 100.000 hectáreas a una población de varios miles de personas en 18 Centros Shuar;
- ▶ El componente de fortalecimiento del gobierno local debería suponer un incremento de la aportación ciudadana a los planes de desarrollo de la mayoría de los municipios, mejorar algunas de las operaciones de alrededor de la mitad de los municipios y, quizás, ayudar a los municipios a acceder a los recursos procedentes de donaciones.

Las conversaciones mantenidas con algunos alcaldes de la región indican que el proceso de paz y el Plan Binacional de Desarrollo de la Región Fronteriza ha sido sumamente importante para que la gente sienta verdaderamente que la situación fronteriza ha experimentado un cambio que es irreversible. Las fuertes inversiones gubernamentales, como las realizadas en un canal de riego, y las inversiones de menor envergadura procedentes de programas como el PSUR, han facilitado a los ciudadanos pruebas materiales de dicho cambio. Ahora que los residentes no temen el estallido de una guerra, empiezan a invertir en la rehabilitación de sus viviendas.

No es probable que el programa PSUR tenga un efecto duradero en otros temas como la emigración y las impresiones de la gente sobre el futuro económico de la región. Estas cuestiones van a depender más de la reactivación de la economía rural, que padece de los elevados costos de la producción en comparación con los de sus vecinos. Por la misma razón, a menos que se efectúe una cuidadosa selección, las actividades destinadas a facilitar fuentes alternativas de ingresos a la población fronteriza gozan de escasa probabilidad de ser eficaces hasta que se corrijan los precios relativos del país, y con relación a Perú.

El programa está haciendo buenos progresos según los planes de trabajo y ha cosechado una serie de éxitos importantes.

- ▶ El número de sistemas de agua, unidades sanitarias y actividades de gestión de residuos sólidos se ajusta al objetivo establecido, a pesar de que el número de beneficiarios se queda algo rezagado. El componente de servicios sociales también ha contribuido a mejorar la coordinación entre los donantes y con los gobiernos locales y ha ayudado a estandarizar los planteamientos de diseño en estas instituciones.
- ▶ El programa de adjudicación de títulos de propiedad de la tierra ha tenido un buen nivel de intervención y podría constituir un gran éxito. Es probable que el proyecto alcance sus objetivos en términos de número de hectáreas sometidas a planes de gestión de recursos naturales y entrega de títulos de propiedad legales, aunque el número de beneficiarios

directos será bastante pequeño. La adjudicación de títulos de propiedad de la tierra también podría eliminar una fuente de conflicto entre las Federaciones Shuar.

- ▶ El componente de fortalecimiento del gobierno local está aumentando la capacidad de los municipios y parroquias de llevar a cabo la planificación participativa.

Los planteamientos que utilizan los servicios sociales y los recursos naturales son sólidos, adecuados para sus respectivas situaciones y se basan en la experiencia acumulada por CARE y sus socios a lo largo de los años. El componente relativo al gobierno local es el que se enfrenta a los mayores desafíos. La misión que se le ha encomendado es la de fortalecer el gobierno local de 26 municipios, pero dispone de un presupuesto relativamente pequeño y funciona en un entorno de políticas que no aportan incentivos para la generación de rentas públicas a nivel local. En términos generales, el programa PSUR parece estar bien gestionado. Su personal parece conocer bien y aplicar de forma activa los sistemas de programación y administración de CARE.

TEMAS Y RECOMENDACIONES

DE ÁMBITO GENERAL

1. El programa es muy bueno, pero necesita algunos ajustes para lograr el máximo impacto, reducir la burocracia y facilitar una mayor flexibilidad.
2. Los objetivos en términos de beneficiarios deberían de ajustarse en base a la experiencia y a la disponibilidad de fondos.
3. Seguir tratando de obtener la totalidad de los US\$ 20 millones para el programa y considerar la posibilidad de ampliar PSUR una año más de forma que se pueda programar con normalidad la financiación.

Servicios sociales

Tema 1: Sostenibilidad económica. Ante la dolarización y los costes al alza, la sostenibilidad económica de los sistemas de agua todavía no está garantizada. Las tarifas que cobran las juntas de aguas en los lugares visitados sólo bastan para cubrir los costos de funcionamiento y no generan ahorro alguno para futuras reparaciones.

Recomendación: Para garantizar la sostenibilidad de los sistemas de agua potable, CARE debería llevar a cabo una segunda fase de promoción en las juntas de aguas para consolidar el establecimiento de unas tarifas dentro de un nivel que permita generar ahorros. CARE podría también contemplar la posibilidad de ajustar sus actividades con las unidades municipales de saneamiento para ver si ellas podrían a la larga ayudar a hacer frente a esta situación.

Tema 2: Costos de las unidades sanitarias escolares. El costo de oportunidad de la promoción, educación y construcción de unidades sanitarias escolares, cuya media supera los US\$11.000 por unidad, parece ser equivalente al costo de unas 20 unidades particulares, totalmente equipadas y pintadas.

Recomendación: CARE debería revisar el diseño de las unidades sanitarias escolares para ver si se puede reducir su costo.

Gestión de recursos naturales

Tema 1: Adjudicación de títulos de propiedad de las tierras. Aunque los beneficios en materia de conservación derivados del programa de adjudicación de títulos de propiedad de las tierras superarían con diferencia a los del resto de los componentes si se tratara de ayudar a los Shuar a obtener títulos de propiedad legales para la mayoría o toda su tierra en la Cordillera Kutucú y sus alrededores, el programa de adjudicación de títulos está experimentando un retroceso en lugar de una expansión.

Recomendación: Aumentar los fondos destinados al componente de adjudicación de títulos de propiedad de la tierra con ECOLEX para que en el 2005 se haya obtenido la titularidad de unas 350.000 hectáreas y así crear la base para el establecimiento de la circunscripción territorial Shuar.

Tema 2: Proceso de circunscripción sin financiar. Los estudios de ECOLEX en materia de política concluyen que la creación de la circunscripción territorial Shuar sentaría las bases para la conservación permanente de la Cordillera Kutucú. A pesar de ello, el componente relativo a los recursos naturales de PSUR no ha facilitado ayudas para este proceso.

Recomendación: Facilitar ayuda técnica y económica al proceso de circunscripción territorial Shuar.

Tema 3: Beneficios del plan de gestión integrada. Los planes de gestión integrada, a pesar de estar bien elaborados y ser técnicamente sólidos, resultan caros de preparar y no satisfacen las necesidades materiales inmediatas de los Shuar.

Recomendación: Simplificar estos planes y reducir sus costos y, a la vez, dotarlos de mayor utilidad para las necesidades de los Shuar que viven en los Centros.

Tema 4: Posibilidades para el silvopastoreo. PSUR ha comenzado ya a crear condiciones excelentes de cara a un programa de ordenación silvopastoral efectivo y generalizado. Si se trabaja con las asociaciones y federaciones Shuar, se podría montar un programa de ordenación silvopastoral y agroforestal a gran escala que se centrara en aumentar la cantidad de especies arbóreas comerciales que crecen en las tierras de pastoreo que hay en la Cordillera Kutucú o en sus inmediaciones.

Recomendación: Facilitar técnicos expertos para el diseño de un programa de ordenación silvopastoral efectivo y generalizado.

Tema 5: Enfoque de las actividades de ordenación forestal. Las actividades actuales de ordenación forestal se centran en el marcaje de árboles y en la preparación de Planes Simplificados de Tala. Dichos planes, aunque pueden reducir el impacto que ejercen las operaciones de tala en la biodiversidad, no necesariamente contribuyen al bienestar del propietario del bosque.

Recomendación: Centrar el programa de gestión forestal en reducir los costes de explotación maderera, incrementar la seguridad de las operaciones de tala y elevar la calidad de las tablas serradas.

Tema 6: Enfoque de las medidas preventivas de PSUR. Las medidas de mitigación del impacto ambiental del PSUR no se centran claramente en los impactos negativos que se le pueden atribuir al propio PSUR. Así pues, su número y contenido son excesivos.

Recomendación: Reducir el número y complejidad de las medidas de mitigación del PSUR.

Fortalecimiento del gobierno local

Tema 1: Capacidad de reivindicar frente a capacidad de responder. El proyecto prestará apoyo a la planificación participativa en 26 municipios y en muchas de sus parroquias. Parece que existe un desequilibrio entre los esfuerzos que está dedicando el programa a fortalecer la capacidad de los ciudadanos y de la sociedad civil de articular sus demandas al amparo de procesos consultivos adecuados, y los esfuerzos que está dedicando a incrementar la capacidad de los gobiernos locales de mejorar la gestión de los servicios básicos. Esta situación podría conducir a una tremenda frustración de la ciudadanía. Parece que el diseño del programa daba por sentado que el Banco del Estado de Ecuador (BEDE) intervendría para dotar a los municipios de más capacidades y contribuir al fortalecimiento de su gestión interna. Lamentablemente, no parece haber actividad alguna del BEDE en los lugares visitados.

Recomendación: Garantizar un mejor equilibrio entre el fortalecimiento de la capacidad reivindicativa de la comunidad y el fortalecimiento de la capacidad de respuesta del municipio. Para ello podría considerarse la búsqueda de nuevos socios, entre ellos AME y otros programas sobre gobierno local financiados por USAID para trabajar en lugares donde no se recibe demasiada asistencia para el fortalecimiento de la gestión interna, o contemplar el recorte del número de lugares que reciben asistencia para la planificación y la redistribución de dichos fondos para la prestación de servicios y la generación de rentas públicas a nivel local. Para mejorar el sistema, habría que considerar la posibilidad de agrupar municipios, desarrollar materiales y procedimientos para programas de formación y fomentar la adopción de las mejores prácticas.

Tema 2: Proceso consultivo = Planificación. La formación y participación de la comunidad ha avanzado enormemente gracias a las intervenciones del programa a todos los niveles (municipal, parroquial y comunitario). Sin embargo, el principal instrumento para fomentar procesos consultivos adecuados ha sido la elaboración de documentos de planificación general. Hasta la fecha son relativamente pocos los recursos que se han destinado a actividades que fomenten un proceso consultivo relacionado con la toma de decisiones municipal, por ejemplo para decidir inversiones según los parámetros presupuestarios o mejorar los servicios básicos. Numerosos ecuatorianos manifestaron que Ecuador cuenta con muchos planes, la mayoría de los cuales se ignoran.

Recomendación: Durante la segunda mitad del proyecto, hacer menos hincapié en la planificación y más en la consulta directa sobre temas relacionados con la toma de decisiones municipal.

Tema 3: Falta de rentas públicas locales. La necesidad más acuciante que tienen los municipios es la de generar más rentas públicas a nivel local. Dentro del programa de mejora de la gestión de servicios públicos, tan sólo dos actividades, manejo de computadoras (indirectamente) y sistema de fijación de tarifas, ayudan a abordar la capacidad financiera del municipio. Algunas otras actividades podrían, de hecho, aumentar los costos de funcionamiento de los municipios.

Recomendación: Hacer más hincapié en la generación de rentas públicas a nivel local, como puede ser una adecuada recaudación de los impuestos y sobre las utilidades, el cobro de tarifas adecuadas por los servicios prestados por los municipios, y el cobro de contribuciones a los dueños de propiedades cuyo valor haya subido debido a las mejoras efectuadas en la comunidad.

Tema 4: Entorno legal y normativo. El proyecto se enfrenta a un entorno legal y normativo muy difícil. La política nacional relativa al gobierno local no ofrece incentivos para la generación de rentas públicas en el ámbito local. De hecho, el sistema de reparto de las rentas federales ofrece incentivos que favorecen el patrocinio y las inversiones no productivas. El sistema legal contiene leyes municipales contradictorias que crean confusión y dan lugar a competencias superpuestas.

Recomendación: USAID debería contemplar la posibilidad de hacer frente a estas cuestiones en el marco del diálogo continuo que mantiene con el gobierno de Ecuador y a través del resto de sus programas dedicados a fortalecer los gobiernos locales.

Indicadores

El sistema de reporte de datos de PSUR es bastante sofisticado pero tiene que someterse a mayor control si ha de resultar totalmente fiable y ser más descriptivo.

Tema 1: Conjunto de beneficiarios. El método de cálculo del número global de beneficiarios admite algún tipo de cálculo doble y la cifra final del proyecto ASSA aparece demasiado elevada. Los objetivos establecidos año a año pueden no ser realistas debido a los reducidos presupuestos.

Recomendación: El número de beneficiarios de la región objetivo debería calcularse sumando el número de beneficiarios de los sistemas de agua potable, de los programas de residuos sólidos y de los planes de adjudicación de títulos de propiedad de las tierras o de recursos naturales. El número de beneficiarios de la titularidad de las tierras (o planes de gestión integrada) debería incluir sólo a los habitantes de los Centros Shuar a los que se otorgan títulos de propiedad de la tierra, no al resto de habitantes que puedan beneficiarse indirectamente de los servicios ambientales. El objetivo global del programa debería ajustarse en consecuencia. Las cifras del programa ASSA deberían volver a calcularse para que fueran más realistas. Los objetivos establecidos año a año deberían ajustarse y sintonizarse con la disponibilidad real de fondos.

Tema 2: Beneficiarios en materia de agua y saneamiento. El método de cálculo del número de beneficiarios relativos a agua y saneamiento no utiliza los mejores datos disponibles. El número global previsto de beneficiarios de sistemas de agua es probablemente inalcanzable.

Recomendación: El número de beneficiarios de las actividades relativas tanto a agua como a saneamiento debería calcularse utilizando el número de casas abastecidas en el momento de entrega y el número real de personas que vive en cada casa en el momento de concluir el estudio inicial. El Acta de Entrega debería hacer referencia al número de familias e individuos beneficiados, y no al número de habitantes de una comunidad. El número previsto de beneficiarios de sistemas de agua y unidades sanitarias debería volver a calcularse basándose en la experiencia recogida hasta la fecha.

Tema 3: Monitoreo del gobierno local. El sistema de monitoreo del componente relativo al gobierno local es demasiado complejo, requiere demasiado trabajo y no refleja adecuadamente los progresos del programa.

Recomendación: Que USAID y CARE vuelvan a elaborar por completo los indicadores del gobierno local y requisitos de documentación relacionados, con la vista puesta en la simplificación del proceso de observación y verificación. Es posible que un menor número de indicadores pero preparados de una manera más explícita pudieran describir con más efectividad los cambios que el programa trata de lograr.

Gestión del Programa

Tema: Parece que existe un supuesto, tanto por parte de USAID como por parte de CARE, de que el diseño del proyecto es intocable y de que todo lo que tienen que hacer las personas es vigilar si el programa cumple los indicadores, incluso los objetivos más detallistas de los componentes relativos a recursos naturales y gobierno local. No se dedica suficiente atención a analizar los progresos realizados a la vista de los resultados intermedios del programa, (por ejemplo si está tomando forma convenientemente algún proceso consultivo del gobierno local) y a cómo ajustar las actividades programáticas para garantizar el máximo impacto. La estructura del informe semestral refuerza esta tendencia. Se trata de un compendio de indicadores previstos frente a indicadores reales con un nivel de detalle muy minucioso. El informe en sí mismo hace que todo el mundo se mantenga centrado en obtener actividades específicas, en lugar de alcanzar resultados más amplios.

Recomendaciones: Que USAID y CARE, así como sus socios, se reúnan una vez al año para analizar los logros alcanzados y discutir cuestiones estratégicas relativas a la preparación del plan de trabajo del año siguiente. Debería incluirse también un análisis orientado a determinar cuáles son las actividades que aparentemente contribuyen más a los resultados intermedios.

El informe semestral debería simplificarse y carecer de excesivo detalle. La sección más útil parecería ser el narrativo.

En general, la dirección del programa debería guiarse menos por el hecho de alcanzar el 100% de los indicadores de menor nivel. Por ejemplo, si los directores del proyecto y de USAID siguen utilizando una matriz para seguir las actividades del gobierno local, deberían trabajar con el 75% de actividades finalizadas como objetivo para determinar si el componente mantiene correctamente su trayectoria. De esta forma se permite cierta flexibilidad para no perseguir actividades que tienen que hacer frente a un entorno difícil.

EXECUTIVE SUMMARY

INTRODUCTION

In October 1998, the presidents of Ecuador and Peru signed a Peace Agreement ending over a century and a half of often-bloody conflict over their shared border. The United States, as one of four Guarantor nations, has invested considerable time, effort, and resources in helping the parties to achieve this peace. As part of this peace agreement, the two governments committed themselves to providing tangible development benefits to the population living in the border region. Towards this end, both governments are working to implement the Binational Border Development Plan. USAID, in support of these initiatives, financed \$1.5 million of border activities in FY 1999 (1st phase), with an increase of \$20 million over the period FY 2000-2005 (2nd phase).

CARE has been the principal implementing partner for both phases. The initial phase (ASSA) was used to support social services with a focus on health, water and sanitation. The second phase (PSUR) was designed to have four components: 1) income generation; 2) social services; 3) natural resources management; 4) and local government.

USAID/ Ecuador contracted Development Associates, Inc to conduct a mid-term evaluation of the Ecuador Border Regional Development Program: ASSA (Agua, Saneamiento y Salud Ambiental, July 20, 1999 to February 28, 2001) and PSUR (Programa de Sostenibilidad y Union Regional, from October 30, 2000 to September 30, 2002). Only the social services, natural resources management, and local government components were to be evaluated, the income generation component already having been terminated. A team of three people, (the Team) traveled to Quito and sites within the Provinces of Loja, El Oro, and Morona Santiago from May 31 to June 21, 2003.

The purpose of the evaluation was to answer the following questions:

6. Will the program approach bring tangible benefits to the population living on the border?
7. Is the program making reasonable progress against work plans?
8. Is the reported data reliable?
9. How well is the program being managed?
10. Should the program design or program management be adjusted?

FINDINGS

PSUR is a very good project that is bringing tangible development benefits to the people living in the southern border region. It is likely that over half of the 448,000 residents who live in the 26 target municipalities will be directly impacted by the project over its five-year life. This would include most of the 195,000 urban population (excluding the city of Loja) and some 40,000 rural residents. Indirect benefits could raise the number of rural beneficiaries even higher.

- ▶ The social services component should bring better water and sanitation to over 35,000 members of poor rural communities and 16,000 urban residents. Garbage collection improvements should reach most of the 195,000 urban residents;
- ▶ The natural resources component could significantly reduce the threats to the biodiversity of the Cordillera Kutucú by providing communal land titles for over 100,000 ha. to a population of several thousand peoples in 18 Shuar Centers; and
- ▶ The local government strengthening component should increase citizen input into development plans in most of the municipalities, improve some operations within about half of the municipalities, and, perhaps, help municipalities access donor resources.

Discussions with mayors in the region suggest that the peace process and the Binational Border Development Program have been very important to give people a sense that the border situation has changed irreversibly. Large government investments, such as an irrigation canal and smaller investments from programs such as PSUR have given people tangible evidence of the change. Now that residents do not fear the outbreak of war, they are beginning to make investments in rehabilitating their homes.

PSUR is not likely to have a long lasting impact on other issues such as migration and people's perceptions about the economic future of the region. These will be more dependent on the reactivation of the rural economy, which is suffering from high costs of production in relation to its neighbors. By the same token, unless selected very carefully, activities designed to provide alternative income sources for the border population are unlikely to be effective until relative prices in country, and vis a vis Peru, are corrected.

The program is making good progress against work plans and has had a number of important successes.

- ▶ The number of water systems, bathrooms and improved garbage collection activities is on target, even if the number of beneficiaries is lagging. The social services component has also helped improve coordination among donors and with local governments and has helped standardize design approaches among these institutions.
- ▶ The land-titling program has hit high gear and could be a big success. The project is likely to meet its targets in terms of numbers of hectares under natural resource management plans and with legal titles, although the number of direct beneficiaries will be quite small. Land titling could also eliminate a source of conflict among the Shuar Federations.
- ▶ The local government strengthening component is increasing the capacities of municipalities and parishes to conduct participatory planning.

The approaches being used by the social services and natural resources are sound, appropriate to their situations, and based on experience garnered over the years by CARE and its partners. The local government component faces the largest challenges. It has a mandate to strengthen local governments in 26 municipalities, but has a relatively small budget and operates in a policy environment that does not provide incentives for local revenue generation.

Overall, the PSUR program appears to be well managed. The staff appear to be knowledgeable about and actively applying CARE programming and administrative systems.

ISSUES AND RECOMMENDATIONS

GENERAL

4. The program is very good, but needs some adjustments to achieve maximum impact, reduce bureaucracy, and provide increased flexibility.
5. Beneficiary targets should be adjusted on the basis of experience and availability of funding.
6. Keep trying to obtain the full \$20 million for the program and consider extending PSUR by a year to allow normal programming of the funding.

Social Services

Issue 1: Financial Sustainability. Given dollarization and rising costs, the financial sustainability of the water systems is still not assured. The tariffs being levied by Water Boards at sites visited are only sufficient to cover costs of operation and are not generating savings for future repairs.

Recommendation: To ensure the sustainability of potable water systems, CARE should conduct a second phase of promotion with the Water Boards to follow-up on setting fees at a level that will generate savings. CARE might also look at the possibility of adjusting its activities with municipal sanitation units to see if they might be able to help address this issue in the long run.

Issue 2: Cost of school bathrooms. The opportunity cost of promotion, education and construction of school bathrooms, averaging over \$11,000 per unit, appears to equal the cost of some 20 household bathrooms, fully equipped and painted.

Recommendation: CARE should review the design of the school bathroom to see if its cost can be reduced.

Natural Resources Management

Issue 1: Land titling. Although the conservation benefits of the land titling program would by far outweigh the other components if it were to assist the Shuar to obtain legal titles to most or all of their land in and around the Cordillera Kutucú, the land titling program is being reduced rather than expanded.

Recommendation: Augment funds for the land titling component with ECOLEX to achieve approximately 350,000 ha of titled land by 2005 and thus create the basis for the establishment of the Territorial Circumscription Shuar.

Issue 2: Circumscription process unfunded. The ECOLEX policy studies conclude that the creation of the Shuar Territorial Circumscription would lay the basis for the

permanent conservation of the Cordillera Kutucú. Yet PSUR's natural resource component has not provided support for this process.

Recommendation: Provide technical and financial support to the Shuar Territorial Circumscription process

Issue 3: Integrated management plan benefits. The Integrated Management Plans, although well prepared and technically sound, are expensive to prepare and do not serve the immediate, tangible needs of the Shuar.

Recommendation: Simplify these plans and reduce their costs while at the same time making them more useful to the needs of the Shuar who live in the Centers.

Issue 4: Silvopastoral opportunity. PSUR has already begun to create excellent conditions for an effective, widespread silvopastoral extension program. Working through the Shuar Associations and federations, it would be possible to mount a large-scale agroforestry and silvopastoral extension program that would focus on increasing the quantity of commercial tree species growing on existing pasture lands within or near the Cordillera Kutucú.

Recommendation: Provide technical expertise for the design of an effective, widespread silvopastoral extension program

Issue 5: Focus of forest management extension activities. The present forest management extension activities focus on marking trees and preparing Simplified Cutting Plans. These plans, although they may reduce the impact of logging on biodiversity, do not necessarily contribute to the welfare of the forest owner.

Recommendation: Focus the forest management program on lowering logging costs, increasing logging safety and raising the quality of sawn boards.

Issue 6: Focus of PSUR mitigation measures. The mitigation measures for PSUR are not clearly focused on the negative impacts that can be attributed to PSUR itself. Therefore, they are excessive in number and detail.

Recommendation: Reduce the number and complexity of the PSUR mitigation measures

Local Government Strengthening

Issue 1: Demand capacity versus response capacity. The project will support participatory planning in 26 municipalities and many of their parishes. The project will only carry out fairly intensive basic service management improvement activities in eight municipalities. There appears to be an imbalance between the amount of effort the program is directing to strengthening the capacity of citizens and civil society to articulate their demands under ensuring adequate consultative processes and the amount of effort the program is directing to increasing the capacity of the local governments to respond under the improving management of basic services. This could lead to a very

frustrated public. It appears that the program design assumed that the Ecuadorian State Bank (BEDE) would be stepping in to provide additional capacity building and internal management strengthening for the municipalities. Unfortunately, BEDE does not appear to be active in the sites visited.

Recommendation: Ensure that a better balance is achieved between the strengthening of the community to demand and the strengthening of the municipality to respond. This might include looking for additional partners, including AME and other USAID funded local government programs to work in sites not receiving intensive assistance for internal management strengthening on cutting the number of sites receiving planning assistance and re-allocating these funds to service delivery and local revenue generation. For system improvements, consider grouping municipalities, developing training program materials and procedures, and promoting adoption of best practices.

Issue 2: Consultative process = Planning. Community training and empowerment has been greatly advanced by program interventions at all levels (municipal, parish and community). However, the principal instrument for promoting adequate consultative processes has been the development of broad planning documents. Relatively few resources have been allocated to-date for activities that promote a consultative process related to municipal decision-making, for example for making investment decisions against budget parameters or improving basic services. Many Ecuadorians expressed their opinion that Ecuador has too many plans, most of which are ignored.

Recommendation: During the second half of the project, place less emphasis on planning and more on direct consultation related to municipal decision-making.

Issue 3: Lack of local revenue. The highest priority need of the municipalities is to generate more local revenues. Within the improved management of basic services program, only two activities, management of computers (indirectly) and fees pricing system, help address the financial capacity of the municipality. Several other activities could, in fact, increase the operating costs of the municipalities.

Recommendation: Place more emphasis on local revenue generation, such as collecting property, business, and head taxes; charging appropriate fees for services provided by the municipality; and collecting contributions from property owners whose property values have increased due to the implementation of community improvements.

Issue 4: Policy and legal environment. The project faces a very difficult policy and legal environment. National local government policy does not provide incentives for local revenue generation. In fact, the formula driven federal revenue sharing system provides incentives for patronage and non-productive investments. The legal system has conflicting municipal laws that create confusion and overlapping authorities.

Recommendation: USAID should consider addressing these issues as part of its ongoing dialogue with the Government of Ecuador and through its other local government programs.

Indicators

PSUR's data reporting system is quite sophisticated but need to be tightened up in order to be fully reliable and more descriptive.

Issue 1: Overall beneficiaries. The method of calculating the overall number of beneficiaries includes some double counting and the end of project ASSA number seems too high. Year by year targets may be unrealistic given reduced budgets.

Recommendation: The number of beneficiaries in the target region should be calculated by adding the number of beneficiaries of potable water systems, of garbage collection programs, and of either land titling or natural resource plans. The number of beneficiaries of land titling (or integrated management plans) should include only the population of the Shuar Centers that receive the land titles, not other populations that may receive the indirect benefits of environmental services. The overall target for the program should be adjusted accordingly. The ASSA numbers should be recalculated to be more realistic. Year by year targets should be adjusted and brought in line with the actual availability of funds.

Issue 2: Water and Sanitation beneficiaries. The method of calculating the number of beneficiaries of water and sanitation is not using the best data available. The overall planned number of beneficiaries for water systems is probably not attainable.

Recommendation: The number of beneficiaries for both water and sanitation activities should be calculated by using the number of houses served at the time of delivery and the actual number of people living in each house at the time the initial survey was completed. The Acta de Entrega should refer to the number of families and individuals benefited, and not to the number of inhabitants in the community. The planned number of beneficiaries for water systems and bathrooms should be recalculated based on experience to date.

Issue 3: Local government monitoring. The monitoring system for the local government component is too complex, too labor intensive, and not very descriptive of program progress.

Recommendation: That USAID and CARE completely redo the local government indicators and associated documentation requirements with an eye to simplifying the monitoring and verification process. Fewer indicators with more narrative on qualitative changes might more effectively describe the changes that the program is trying to achieve.

Management

Issue: There seems to be an assumption on the part of both USAID and CARE that the project design is sacrosanct, and that all people need to do is to monitor whether the program is meeting its indicator targets, including detailed targets within the natural resources and local government components. There is not enough attention being given to reviewing progress against the intermediate results of the program, (for example whether adequate local government consultative processes are taking shape) and how to adjust programmatic activities to ensure maximum impact. The structure of the semi-annual report reinforces this tendency. It is a compendium of planned versus actual indicators

down to a very minute level of detail. The report itself keeps everyone focused on accomplishing specific activities instead of attaining broader results.

Recommendations: That USAID and CARE and its partners meet once a year to review past achievements and to discuss strategic issues with respect to the preparation of the coming year's work plan. This should include a review to determine which activities appear to be contributing the most to intermediate results.

The semi-annual report should be streamlined and void of extreme detail. The most useful section appears to be the narrative analysis.

In general, program management should be less driven by meeting 100% of lower level indicator targets. For example, if project and USAID managers continue to use a matrix to follow local government activities, a target of 75% completion should be used for determining whether the component is on track. This allows some flexibility to not pursue activities that are facing a difficult environment.

MID-TERM EVALUATION

ECUADOR BORDER REGION DEVELOPMENT PROGRAM

ASSA/PSUR

I. PURPOSE OF THE EVALUATION

In October 1998, the presidents of Ecuador and Peru signed a Peace Agreement ending over a century and a half of often-bloody conflict over their shared border. The United States, as one of four Guarantor nations, has invested considerable time, effort, and resources in helping the parties to achieve this peace. As part of this peace agreement, the two governments committed themselves to providing tangible development benefits to the population living in the border region. Towards this end, both governments are working to implement the Binational Border Development Plan. USAID, in support of these initiatives, financed \$1.5 million of border activities in FY 1999 (1st phase), with an increase of \$20 million over the period FY 2000-2005 (2nd phase).

CARE has been the principal implementing partner for both phases. The initial phase (ASSA) was used to support social services with a focus on health, water and sanitation. The second phase (PSUR) was designed to have four components: 1) income generation; 2) social services; 3) natural resources management; 4) and local government.

USAID/ Ecuador contracted Development Associates, Inc to conduct a mid-term evaluation of the Ecuador Border Regional Development Program: ASSA (Agua, Saneamiento y Salud Ambiental, July 20, 1999 to February 28, 2001) and PSUR (Programa de Sostenibilidad y Union Regional, from October 30, 2000 to September 30, 2002). Only the social services, natural resources management, and local government components were to be evaluated, the income generation component already having been terminated. A team of the three people, (the Team) traveled to Quito and sites within the Provinces of Loja, El Oro, and Morona Santiago from May 31 to June 21, 2003.

The purpose of the evaluation was to answer the following questions:

1. Will the program approach bring tangible benefits to the population living on the border?
2. Is the program making reasonable progress against work plans?
3. Is the reported data reliable?
4. How well is the program being managed?
5. Should the program design or program management be adjusted?

II. TEAM COMPOSITION AND METHODOLOGY

A Development Associates, Inc team composed of Kenneth G. Schofield, team leader, Sigifredo Ramirez, local government specialist, and Bruce Kernan, natural resources specialist, carried out the mid-term evaluation.

The Team reviewed relevant project and other documents – a list is provided as an annex. The Team interviewed a wide range of officials of CARE and USAID, project beneficiaries, as well as, national and local officials and technical staff. A complete list of people interviewed is also provided as an annex. The Team also traveled to the Provinces of Morona Santiago, Loja and El Oro to visit project sites. Bruce Kernan spent seven days visiting project activities in Morona Santiago, focusing on the natural resources component. Sigifredo Ramirez and Ken Schofield spent seven days in Loja and El Oro, and another three days in Morona Santiago visiting social services and local government strengthening activities. The Team also reviewed CARE's data collection system and tested the reliability of data reported to USAID.

III. FINDINGS: OVERALL IMPACT

The principal question to be answered is whether the program overall approach is likely to bring tangible benefits to the population living on the border. USAID/Ecuador also asked the Team to determine whether ASSA achieved substantial results and whether the program is likely to contribute to larger goals of changing people's perceptions about the future and migration patterns.

Larger goals: Discussions with mayors in the region suggest that the peace process and the Binational Border Development Program have been very important to give people a sense that the border situation has changed irreversibly. Large government investments, such as an irrigation canal and smaller investments from programs such as PSUR have given people tangible evidence of the change. Now that residents do not fear the outbreak of war, they are beginning to make investments in rehabilitating their homes.

PSUR is not likely to have a long lasting impact on other issues such as migration and people's perceptions about the economic future of the region. These will be more dependent on the reactivation of the rural economy, which is suffering from high costs of production in relation to its neighbors. By the same token, unless selected very carefully, activities designed to provide alternative income sources for the border population are unlikely to be effective until relative prices in country, and vis a vis Peru, are corrected. That is to say, if the mission decides to promote alternative income sources, it should only promote those that are likely to be profitable under current relative prices and foreign exchange rates.

Tangible benefits: Over its five-year life, PSUR is likely to directly impact over half of the 448,000 residents who live in the 26 target municipalities. This would include most of the 195,000 urban population (excluding the city of Loja) and some 40,000 rural residents. Indirect benefits could raise the number of rural beneficiaries even higher.

- ▶ The social services component should bring better water and sanitation to over 35,000 members of poor rural communities and 16,000 urban residents. Garbage collection improvements should reach most of the 195,000 urban residents;

- ▶ The natural resources component could significantly reduce the threats to the biodiversity of the Cordillera Kutucú by providing communal land titles for over 100,000 ha to a population of several thousand peoples in 18 Shuar Centers; and
- ▶ The local government strengthening component should increase citizen input into development plans in most of the municipalities, improve some operations within about half of the municipalities, and help municipalities access donor resources.

ASSA: The Team had very little information with which to review the ASSA component. The Team read ASSA's final report and visited one water system and two municipalities where garbage collection systems had been improved. The Team noted no difference in the quality of the projects between those carried out under ASSA, and those carried out under PSUR. However, CARE staff assured us that they had learned many lessons under ASSA that they had integrated into the design of PSUR. The only ASSA issue is the number of beneficiaries that are claimed in the ASSA final report. The 168,000 figure represents the entire population of the six municipalities where ASSA was active. CARE and USAID might wish to review this figure and ensure that it meets the same standards that are being applied to PSUR. Otherwise, since PSUR is still active in the same six municipalities, new activities will generate beneficiaries that have already been counted. It might be advisable to only count beneficiaries for the same types of programs, e.g. water and sanitation projects that are also being implemented under PSUR, and not beneficiaries of health system improvements.

IV. FINDINGS — SOCIAL SERVICES

GENERAL

The social services component is composed principally of potable water systems, detached bathrooms, school bathrooms and community garbage collection programs and is focused in the provinces of Loja and El Oro, but is also being implemented in Morona Santiago province. Each component involves the construction of facilities, the organization of communities and municipalities for both construction and the long-term management of the systems, and education in basic hygiene to ensure that the beneficiaries obtain the maximum health impact of the investments.

The water systems serve anywhere from a few families to 25,000 people and are designed to meet the needs of the people while providing a technically sound solution at the lowest cost possible. For small numbers of families, water pumps are used. This is the case in a few areas of Morona Santiago. Most water systems are for larger communities (65 – 100 families) and use gravity systems that tap water sources such as streams and springs or well systems with pumps. New systems include components such as new water catchment facilities or wells, water transmission lines, water tanks with associated filtering and chlorine units, distribution networks to homes, water meters and household connections, including to bathrooms. Renovated systems often upgrade several parts of old systems and provide new transmission lines, distribution networks, meters and household connections. To-date, new systems account for just over half of the new and renovated systems completed in Loja/El Oro, and almost all of the systems in Morona Santiago. Both new and renovated systems include the organization of community Water Boards to manage the system and collect fees for operation and maintenance. This

includes, *inter alia*, the legalization of the Boards, the establishment of internal regulations approved by the community, assistance in resolving conflicts, setting tariffs, and selection of system operators. CARE is also trying to strengthen the water and sanitation units of municipalities to be able to support the Water Boards.

Bathrooms are detached rooms that are built with toilets and septic tanks as well as connections for shower- heads and sinks. They require water connections. Individuals can upgrade the rooms as they wish over time by adding tiles, paint, and the shower and washbasin components. School bathrooms are stand-alone buildings with separate bathrooms for girls and boys. Garbage collection improvements may include organizing the management of garbage collection, starting recycling programs, designing public education campaigns, and building and managing sanitary landfills. Since the garbage collection systems improvements are carried out at the municipal level and are implemented by members of the local government strengthening team of CARE, this evaluation will address these activities under the local government strengthening section. CARE and USAID should consider adjusting its reporting as well.

PSUR is expected to build 97 potable water systems and 3923 bathrooms during the life of the project. The Team believes that it is likely that the program will achieve its targets in terms of the number of water systems and bathrooms. However, the Team believes it is unlikely that the program will reach the target number of beneficiaries and that the annual targets should be reset to be more realistic. For example, the project would have not met its 2002 target for water beneficiaries if it had not helped with an emergency rehabilitation of the water system for the city of Catamayo with 25,000 beneficiaries. The FY 2003 target is 50,393, which requires an addition of 10,000 beneficiaries. This is a larger number than ever reached in one year, unless another large city is included. The targets for number of people benefited by bathrooms over the next three years also seem unrealistic and based on ever increasing family sizes. For example, between 2003 and 2004 CARE expects to build 569 bathrooms. However, this is supposed to benefit almost 10,000 individuals. This would require that 17 people used each unit.

SITE VISITS

The Team visited four potable water systems and one bathroom program. The findings for each individual site are described in Annex D. Taken together, the site visits helped form the Team's impressions with respect to the program approach, sustainability, impact, gender, and cost.

Program Approach: In general, the program uses the integrated approach of providing water, sanitation and hygiene education to maximize the health impact of the program. It also focuses on ensuring that the community truly owns the infrastructure and is organized to operate and maintain it. The project has incorporated several additional activities to improve the likelihood that these systems will prove to be sustainable: for example the promotion of community Water Boards and strengthening of municipality water and sanitation units. CARE is well aware of the situation in Ecuador where it was estimated in 1999 that seven out of ten water systems built were no longer operational after three years. The program approach to rural water and sanitation is based on CARE's long experience with these types of programs and significant on-the-ground experience in these provinces. The program approach is also consistent with international best practices as described in reports such as: "Towards better programming, A WATER HANDBOOK," Water, Environment, and Sanitation Technical Guideline Series – No. 2 UNICEF.

The process for selecting communities is also aimed at promoting sustainability. The selection process for water systems compares community projects against the following criteria: 1) the existence of enough water; 2) the number of beneficiaries; 3) the organizational strength of the community; 4) the distance from the water source to the community; 5) the willingness to pay water tariffs; 6) the existence of certain bureaucratic approvals; 7) the incidence of disease; 8) the existence of a design; 9) the likelihood of having partners; and 10) the possibility of complementarity's with other PSUR project activities. Water systems and associated social promotion and education take about a year to complete. Construction takes about six months, with social promotion and education taking up the rest of the year.

The construction of individual bathrooms for homes uses a "sites and services" model, where a basic unit of a shell, with installed toilet, shower and sink connections, and septic tank is provided. The individual may then add the shower and washbasin, as well as, paint, tiles or other improvements over time. The school bathroom is a larger structure with steel beams and improved roof and has all the fixtures and tiles included.

While we did not visit any particular units, CARE has also been strengthening the water and sanitation units of municipal governments so that they can better support the Water Boards of the communities. This will be critical to help communities solve technical and financial problems in the future.

The project tries to protect the immediate area around the water source to reduce erosion and contamination. However, the project assumes the other active donor programs in the Loja/El Oro area will protect the watersheds that feed these water sources. The Team was not able to visually inspect any project or other donor activity related to protecting the water supply and was not able to come to a conclusion about the soundness of these approaches.

The Team notes that the donor supported MIDUVI – PRAGUAS program has been working on national policies and creating a decentralized approach for designing, supporting and financing rural water and sanitation systems. As the PSUR program goes forward, the CARE social services team should become acquainted with this new institutional and financial framework and look to build complementarities.

Sustainability: While the program has paid a lot of attention to promoting the social, organizational and financial sustainability of the water systems, financial sustainability is not yet assured. The Water Boards have been well organized, trained, and have good books. At the initiation of operations, the Water Boards set tariffs that covered the operation and maintenance of the systems, and generated significant savings to cover the cost of repairs. However, with dollarization and rising costs, the tariffs being levied by Water Boards visited are only sufficient to cover the cost of operations and do not generate savings to be used for future repairs. This is particularly acute in the case of systems that rely on pumps, as the cost of repairing or replacing pumps may run into the thousands of dollars.

The Teams site visits in the Loja/El Oro provinces did not reveal much information on other donor activities to help protect the watersheds that feed the water sources for the potable water systems. The Team notes that in the 1999 study, half of the water systems that stopped functioning faced water shortages at the source.

Impact: While purely anecdotal in nature, all the communities visited commented on the improvement in child health and reduction in the time and effort needed to obtain water.

Gender: Many of the Water Board members and several of its officers are women. Several of them were active participants in discussions.

Costs: The direct cost of supplying potable water with a new system, including CARE, provincial, municipal, and community inputs, is around \$1,000 per family or \$150 per beneficiary. This includes construction, materials, equipment, social promotion, and manual labor. It is not clear whether this includes design costs. It does not include CARE project staff salaries, office administrative costs, or overhead. The cost of rehabilitating a system is running between \$400 and \$775 per family and \$90 to \$170 per beneficiary. Note that the average cost of rural water systems per beneficiary in other projects in Ecuador has been estimated to be \$100 for new construction and \$50 for rehabilitation. However, these costs only include construction costs. The construction of each basic detached bathroom requires about \$150 of CARE resources, as well as, another \$100 from the community and municipality. A fully outfitted bathroom may cost \$500. The average cost of a school bathroom is estimated to be \$11,000, based on the costs described in Actual Entrega for a random sample of six sites.

RECOMMENDATIONS — SOCIAL SERVICES

1. Sustainability: CARE should do a second phase of promotion with the Water Boards to follow-up on setting fees at a level that will generate savings. CARE might also look at the possibility of directing its activities with municipal sanitation units to see if they might be able to help address this issue in the long run.
2. With respect to the sustainability of water at the source, CARE should review its assumptions with respect to the availability of other natural resources management programs to protect watersheds. Members of the natural resources management team might be invited to look at this issue in Loja/El Oro.
3. Cost of school bathrooms: The Team suggests that CARE re-look at its basic design to see if the cost of school bathrooms can be reduced to perhaps no more than five or six times the cost of a fully equipped household bathroom. The opportunity cost of one school bathroom now equals some 20 household bathrooms.

V. FINDINGS — NATURAL RESOURCE MANAGEMENT

PSUR's Natural Resource Management Component operates only in the Province of Morona Santiago. Its design responds to the particular ecological, economic, political, and social characteristics of Morona Santiago Province in general and the Cordillera Kutucú in particular. The emphasis on forestry reflects the province's large areas of biologically diverse, tropical rainforest and the contribution that they make to the province's formal and informal economy. The agroforestry activities sponsored by the component reflect the traditional indigenous shifting agricultural practices, which extract nutrients from generally infertile soils and control infestations of insects and diseases. That the component was designed to work with and through two of the Shuar federations, FISCH and FIPSE, reflects their political weight in the province, based on the large indigenous population, and their geographical division of influence. The large

land titling activity reflects the urgency of land ownership and control issues in the province, especially between the mestizo colonists from the Ecuadorian highlands and the indigenous peoples. The focus on the Cordillera Kutucú, and especially the biological research activities, reflects the international importance of its biological diversity as well as the conflicting claims to its forest and mineral resources. In short, PSUR's Natural Resource Management Component has been tailored to address the most urgent issues of economic development, social justice, and ecological management in Morona Santiago province.

The Intermediate Result for this component is "Improved natural resource management in selected areas along the border." It has the four indicators shown in Table 1.

TABLE 1
PSUR Natural Resource Management Component Indicators,
Units of Measure and Target Results by 2005

Indicator	Status 2005
Number of hectares of land in selected areas under NRM plans	100,000 ha
Number of beneficiaries	25,000 people
Number of hectares under legal title in or near the buffer zones	100,000 ha
Number of beneficiaries:	25,000 people
Policy documents development which strengthen the legal basis for conservation and development in the Cordillera del Kutucú and its area of influence	10 studies

In its report through September 30, 2002, PSUR indicated that it had prepared natural resource management plans (NRM Plans) for a total 38,481 ha in 9 Shuar Centers. The planned accumulated result by that date was 35,000 ha, so PSUR exceeded its target for NRM Plans by 110 percent. In fact, PSUR also prepared NRM Plans for an additional 73,079 ha for which it obtained title with financing from the PRODEPINE project. A review of these plans indicated that they meet the same standards as the plans PSUR reported through September 30, 2002. Therefore, there is no reason not to count them as a PSUR result. The total number of ha under NRM Plans would, therefore, be 111,920 ha rather than 38,481 ha. Utilizing these additional ha, the actual would exceed the planned result for 2002 by almost 300 percent and easily meet the 2005 target.

PSUR reports a total number of beneficiaries from NRM Plans through September 30, 2002 of 9,195 or 102 percent more than planned. This number includes 8,878 indirect beneficiaries from two NRM Plans: Uunt Suants and Angel Roubi. PSUR argues that the indirect beneficiaries receive the benefits of protected environmental services as a result of the NRM Plans. Since Angel Roubi is in an area of relatively dense populations to the east of the Upano River, its NRM Plan, if implemented, may protect environmental services that benefit 2,474 people. Uunt Suants, by contrast, is located in the middle of the Cordillera Kutucú, far from any population concentration. It is unlikely, therefore, that the preparation of a NRM Plans could provide indirect benefits to 6,404 people. Removal of the indirect benefits of the Uunt Suants NRM Plan reduces the actual number of beneficiaries to 2791, or 39 percent of the target.

Through September 30, 2002, PSUR reported that it has obtained title for 73,079 ha, exceeding the planned result of 35,000 ha by 209 percent. PRODEPINE financed the titling of these 73,079 ha. and the Team presumes that PRODEPINE is considered a partner in the consortium and therefore these ha. should be counted within PSUR's results targets. The land of the Shuar Centers where PRODEPINE financed titling lies outside of the Cordillera Kutucú Public Protection Forest. Their titling therefore involves fewer approvals by the Ministry of Environment. The land of the Shuar Centers for which PSUR is financing titling, by contrast, occur within or on the edges of the protection forest, and requires more approvals by the Ministry of Environment. As a result, even as of June 2003, only 2 of the 9 Shuar Centers within or near to the protected forest had obtained their land titles.

PSUR reported the number of beneficiaries of land titling as 5,287. Of these, 1,338 were direct beneficiaries and 3,949 were indirect beneficiaries. PSUR argues that the land titling provides protection for forest environmental services, such as clean water, to the populations in near-by towns. If only the direct beneficiaries were to be counted, PSUR would have met only 15 percent of its target for beneficiaries from land titling. The area is so lightly populated that PSUR cannot meet the target number of beneficiaries of from land titling of 25,000 by 2005.

Through September 30, 2003, PSUR had prepared 6 policy studies or 60 percent of those planned by 2005.

SUB-COMPONENTS OF THE NATURAL RESOURCE MANAGEMENT COMPONENT

The Natural Resource Management Component has 5 sub components. One or more member organizations of the PSUR Consortium implement each sub component. The following paragraphs summarize each sub component's activities, actual results through September 30, 2003 and projected results through 2005.

Protected Area Management

Responsible Institution: Ecociencia

This subcomponent's expected results by 2005 include 3 environmental impact studies; a study of hunting in a Shuar Center; a Rapid Ecological Assessment of the Cordillera Kutucú; a conservation plan for the Cordillera Kutucú, conservation plans for 3 protected areas; 18 parabiologists trained; 2 proposals for conservation concessions; and a study of the process of deforestation in the Cordillera Kutucú.

PSUR will probably meet most of these goals. By September 30, 2002, Ecociencia was making studies of biodiversity within the Cordillera Kutucú to establish a baseline of scientific information and to determine conservation priorities. Ecociencia also was conducting a study of hunting within the Cordillera Kutucú with the purpose of managing and maintaining wildlife populations. Jatun Sacha and the Center for Conservation Data (CDC) had prepared environmental impact assessments of the Upano Valley and the Evezezer Taisha road, including maps of those areas at 1:50,000. Jatun Sacha and the Wildlife Conservation Society (WCS) had monitored compliance with the mitigation measures that the Programmatic Environmental Assessment (PEA) established. Nine parabiologists have been trained. A study of deforestation

has been made, not in the Cordillera Kutucú but along the route of the projected road from the Upano Valey to Taisha to the north. Little deforestation is taking place in the Cordillera Kutucú in any case so its study would not be particularly useful at present.

No other road is being built so there is no immediate need for a third environmental impact study. Since some of the trained parabiologists do not have employment, to train additional parabiologists would create an redundancy in technical specialties. Other than the Cordillera Kutucú, there are no other existing protected areas that lack conservation plans so it will be difficult to comply with the target result of conservation plans for three protected areas.

Sustainable Forest Management

Responsible Institution: Jatun Sacha

This subcomponent's expected results by 2005 are 60 logging plans on individual properties and 3 integrated community management plans.

By September 30, 2002 technical assistance from PSUR had helped in the preparation of over 40 logging plans that comply with Ecuador's forestry regulations. Because the local technicians now know how to prepare logging plans, if there is demand for their preparation, the result of 60 plans could be achieved.

Agricultural Production

Responsible Institutions: Arco Iris and SNV

By 2005 this subcomponent was to have established 20 agroforestry models in Trans Kutucú.

By September 30, 2003 15 recent high school graduates had been trained to be local agricultural technicians. They had begun to provide technical assistance in agricultural production, fish and snail rearing and chicken raising to Production Committees of farmers in the Shuar Associations Sevilla and Mendez in the Upano Valley. In the Trans Kutucú, the sub component had provided Shuar Centers with technical assistance in the establishment of agroforestry and short cycle crops. These involve combinations of achiote, cacao and pasture with commercial trees and cultivation of peanuts and ginger. The subcomponent also promotes the commercialization of these crops through market studies. As a result of these activities, by September 30, 2002, the expected result in this subcomponent had already been achieved.

Commercialization

Responsible Institution: CARE

Under this subcomponent the expected result by 2005 is 4 groups that have received technical assistance in the sale of wood, cacao, sugar cane and handicrafts and at least 1 sale of certified wood and 2 sales of certified agricultural products.

By September 30, 2002 this subcomponent had organized, provided technical assistance, and looked for markets for wood producers, handicraft artisans, and farmers in the Associations

Mendez and Sevilla. It has provided a seed fund of US\$2000 to provide credit to wood producers in Mendez in the amount of US\$450 each for 120 days. By 2005, however, it is not likely that certified wood or certified agricultural products will be sold as part of PSUR. There is at present no market for certified wood and agriculture products that would justify the extra expense involved in certification. The Team did not evaluate the assistance that PSUR may have provided to cacao, sugar cane or handicrafts.

Political and Legal Initiatives

Responsible Institutions: ECOLEX, Jatun Sacha, Ecociencia

The projected results by 2005 of this subcomponent were 100,000 ha titled in the Cordillera Kutucú to 9 Shuar Centers and 10 policy studies prepared.

As previously discussed the planned results for land titling had been achieved by September 30, 2002. Through September 30, 2002 land titles had been obtained for 9 centers and 73,079 ha. It is likely that the total number of land titles will increase to well over 100,000 ha by 2005. Ecociencia and Jatun Sacha had worked with ECOLEX to prepare Integrated Management Plans, a requirement for obtaining land titles, for 18 Shuar Centers. ECOLOEX also had prepared 6 studies concerning policies that would affect conservation and development in the Cordillera Kutucú. It is unclear whether an additional 4 policy studies would be useful or what their specific subjects would be.

Responses to Specific Questions Posed by the Terms of Reference

- 1. Validate the policy documents that strengthen the legal basis for conservation and development in the Cordillera del Kutucú. What is the area of influence? Are the policies being applied? Do they make sense?**

The report entitled Propuestas Jurídicas para la Administración y Manejo Territorial de la Cordillera del Kutucú, prepared for PSUR by ECOLEX and dated September 2002, contains the policy documents financed by PSUR. The following sections summarize the content and conclusions of each of the studies and judge whether these make sense.

▶ Study No 1: Legal Alternatives for Land Adjudication

Colonists, mining interests, and petroleum companies are poised to take advantage of unclear land rights in and around the Cordillera Kutucú. Conservation and development in the Cordillera Kutucú, therefore, requires prompt resolution over land rights in favor of the ancestral rights of the Shuar.

This study's objective was to determine effective mechanisms and procedures to adjudicate and regulate land tenure for the Shuar Centers in the Cordillera Kutucú. The study first describes the Ecuadorian laws and regulations that govern land tenure for ancestral lands of indigenous peoples such as the Shuar. Then it proposes two concurrent processes to resolve the superimposition of the Cordillera Kutucú Public Protection Forest on ancestral Shuar territories. One would delimit the Kutucú Public Protection Forest. The other would give communal title of ancestral Shuar lands to the Shuar Centers within the Cordillera Kutucú.

Removing Shuar ancestral lands from the Cordillera Kutucú Public Protection Forest and giving them a communal title to Shuar Centers makes sense. Since its declaration over twelve years ago, in 1990, the Government of Ecuador has done nothing to protect or manage the Kutucú Public Protection Forest. It is unlikely to do so anytime soon.

Delimitation of the Kutucú Public Protection Forest, by contrast, makes less sense. So far that designation has resulted in no conservation benefits in the Cordillera Kutucú. Moreover, PSUR is working to title most of the Cordillera Kutucú to the Shuar Centers. Why spend scarce funds on the delimitation of the Kutucú Public Protection Forest that never really existed and which PSUR itself is working to transfer to communal ownership?

▶ **Study No 2: Legal Basis for Conservation Concessions**

CARE's proposal for PSUR gave a prominent role to the participation of the U.S. environmental NGO Conservation International and its favorite idea, conservation concessions. Through this mechanism rich people in rich countries pay poor people in poor countries to not destroy biodiversity.

This study evaluates the Ecuadorian legal basis for not only conservation concessions but also conservation right-of-ways and conservation trusts. It finds the Ecuadorian legal basis for these mechanisms almost non-existent. Ecuadorian law does permit concessions of public property or functions to private administration. PSUR, by contrast, is working to assign communal titles to Shuar Centers within the Cordillera Kutucú, not to establish public control. Conservation concessions thus serve no role in the conservation of the Cordillera Kutucú. Rights-of-way, although well established in Ecuadorian law, require two parties since one party must give and the other must receive the right-of-way. One Shuar Center, however, would have no reason to give an ecological right-of-way to another Shuar Center. And no Shuar Center would cede a right-of-way to an environmental NGO. Ecological right-of-ways thus have no role in the Cordillera Kutucú. A trust fund in theory could finance conservation in the Cordillera Kutucú. Interest could be Transferred to the Shuar Centers in exchange for conservation. PSUR, however, has not funds to capitalize a trust fund and there is no other apparent source of funds. Moreover, the actual mechanisms for utilizing the interest to obtain conservation in such a vast, rugged area as the Cordillera Kutucú remain unclear. A conservation trust fund, therefore, is not a likely option for conserving the Cordillera Kutucú.

In sum, the study quite conclusively demonstrates that conservation concession, rights of way or trust funds are not at present practical mechanisms for achieving conservation of the Cordillera Kutucú and PSUR.

▶ **Study No 3: Identification of Conflicts in the Cordillera Kutucú**

The conflict that permeates the Shuar culture has taken new forms as the Shuar become sedentary and fight to protect their ancestral rights from outsiders and quarrel among themselves about the division of ancestral lands. Conflict resolution and management thus underlie control over land, land use, and conservation in the Cordillera Kutucú.

This study identifies the conflicts that pervade the Cordillera Kutucú. Shamanism stimulates almost constant conflict between individuals within Shuar society. Many local conflicts,

however, concern boundary lines, which are difficult to identify and demarcate in the Cordillera Kutucú's rugged topography and dense forest, between family parcels and Shuar Centers. The three Shuar federations clash over how to give land titles to the Shuar. FISCH promotes communal land titles for Shuar Centers, FIPSE prefers communal land titles for Shuar Associations, and OSHE believes in individual land titles. Members generally distrust their federations' leadership, accusing it of dishonest and unfair use of donated funds. Conflicts also occur between the Shuar and government institutions, mining and petroleum companies and NGOs.

The study goes to the heart of the problem of conservation and development in the Cordillera Kutucú. Conflict, by destroying the cohesion of the Shuar, increases their vulnerability to outside influences and pressures. It thus reduces the chances for conservation and development. Successful conflict resolution and management thus plays a crucial role in achieving PSUR's conservation goal.

▶ **Study No 4: Strategies for the Management of Conflicts in the Kutucú**

Successful conflict resolution and management results not from chance, but from carefully planned and skillfully implemented techniques to resolve issues and reconcile different points-of-view. This study proposes new instruments to manage conflicts in accordance with traditional Shuar culture, new forms of Shuar organization, and Ecuadorian legislation. These instruments include negotiation, arbitrage, mediation and inducement of cultural change through education.

Mediation could attenuate the rivalry between Shuar federations, helping them to find common goals and avoid additional internal factions. Negotiation could reduce unproductive conflicts between the Shuar and the national government over mining and petroleum exploration and production. Arbitrage to reduce conflicts within the Shuar Centers could be reinforced through training for community authorities. Legal prosecutions to counter shamanism would be counterproductive, but educational programs could change Shuar cultural perceptions about conflict.

This study provides a useful guide to reducing the pervasive conflicts that impede conservation and development in the Cordillera Kutucú.

▶ **Study No 5: Legal Aspects of Territorial Issues**

Conservation and development in the Cordillera Kutucú, where no form of territorial management presently exists, depends on satisfactory and prompt resolution of its legal status. This study usefully reviews the various laws and regulations that bear on the establishment of a legal status of the Cordillera Kutucú that would permit conservation and development.¹ It recommends that the Cordillera Kutucú be designated a Territorial Circumscription, a form of territorial administration newly permitted by the 2000 Ecuadorian Constitution. No other form of territorial administration, whether a Public Protection Forest or private property would be likely to protect effectively the Cordillera Kutucú biodiversity from the threats to its ecological integrity presented by colonists, wood industry, mining, and petroleum interests. Communal

¹ These include Law of Communal Organization and Regimes, the Special law of Decentralization and Social Participation, the Law of Environmental Action, the Treaty 169 Concerning Indigenous Tribes of the International Labor Organization, and the Treaty of Amazonian.

titling of land to Shuar Centers, although essential, must be followed by the establishment of a Shuar Territorial Circumscription if effective conservation and development is to be achieved in the Cordillera Kutucú.

▶ **Study No 6: Jurisdictional Proposal for Territorial Administration**

For sustainable conservation and development to occur in the Cordillera Kutucú the Shuar must win the current political and economic struggle over its future through the establishment of a Shuar Territorial Circumscription. This study outlines the steps over 4 to 6 years that would be required to establish a Shuar Territorial Circumscription. It serves as a practical guide to achieving the goal of a Shuar Territorial Circumscription.

2. Are the NRM practices that are promoted actually being implemented?

Two sub components fall under the category of natural resource management: sustainable forest management and agricultural production.

Through September 30, 2002, the sustainable forest management component had prepared 40 simplified logging plans. PSUR had financed 18 community integrated management plans and had organized seven workshops about the forestry regulations, which a total of 155 people had attended. Nine forest owners had actually cut and sold wood with the assistance of PSUR. Many of them, however, were waiting for the price of timber to rise before undertaking logging. Through September 30, 2002 the integrated management plans for the Shuar Centers, which cover a total of 38,480 ha, had not been implemented.

The agricultural production component has been concentrated in the Upano Valley, in the centers of Mendez and Sevilla, and in the Shuar Center Taisha in the Trans Kutucú. In the former area, the subcomponent has organized nine production committees. Their members are raising chickens, snails and fish. The subcomponent also has supported the reactivation of the Mendez Association fish farm. In Taisha, PSUR, in collaboration with the SNV, established various types of agroforestry demonstrations in a total of 7 Shuar Associations on 232 farms.

In sum, the sustainable forest management practices are being planned but not generally implemented. The agricultural practices, by contrast, are being both planned and implemented.

3. Is the cost of titling reasonable?

According to ECOLEX it cost US\$198,187 to title the 73,079 ha that PSUR had titled through September 30, 2002.² This amounts to US\$2.71 per ha. According to ECOLEX, however, the cost per ha of titling as of June, 2003 has gone up by 60 percent to US\$4.50 per ha. ECOLEX attributes this rise in costs to the requirement for the preparation of more detailed, complete Integrated Management Plans. If this is true, then the cost of the Integrated Management Plans would be US\$1.79 per ha, or about 40 percent of the total cost of the land title.

The ECOLEX policy studies, which were discussed under Question 1, unequivocally conclude that untitled land represents the largest threat to the conservation of the Cordillera Kutucú.

² It was not possible to independently confirm this cost.

Interviews with Shuar leaders at all levels confirmed that they perceive land titling as the most important component of PSUR. Field observations confirmed that without land titles large areas of the Cordillera Kutucú lay open to colonization with the construction of access roads. Yet in 2003, due to lack of funding, PSUR's land titling component has reduced its rate of land titling rather than increased it.

Given the lack of funds, it is questionable to spend US\$1.79 per ha on the preparation of Integrated Management Plans that raise the cost of titling by 40 percent. A land title is a solid, specific result in itself for the landowner. Resolution of land conflicts through a wide-scale settling of land ownership disputes through land titling is a basic requirement for economic growth and social stability. These in turn underlie the conservation of ecological integrity.

An Integrated Management Plan, by contrast, must be implemented to produce a result; the plan itself is only a plan. Yet interviews with the leaders of Uunt Suants indicated that they know little about the content of the Integrated Management Plan and do not consult it in making land use decisions. The content of the plans, moreover, tends to be that which would interest and be useful to people from outside Uunt Suants more than to those who live there. The people of Uunt Suants, for example, have no need for a report that tells them the scientific names of plants and animals, describes their own festivities, or lists the names of their own leaders.

In conclusion, the cost of land titling itself, if it is US\$2.71 per ha may be reasonable, especially given the remoteness of most of the Shuar Centers and therefore the high cost of reaching and working in them. The additional cost of US\$1.79 per ha associated with land titling, but attributable to the preparation of Integrated Management Plans, however, does not appear to be reasonable, especially given the relative priorities of the Shuar.

4. Is the NRM approach appropriate? Has integration of sustainable development practices at the community level and management of protected areas proved effective?

The agricultural production component of PSUR is an appropriate means to achieve PSUR's purpose of improving the quality of life of poor families. Although data are not available to estimate increased benefits quantitatively, field inspections and interviews indicate that increased agricultural production will be likely to translate into more food and better nutrition for the participating families. Given the variability of the market prices for agricultural products and inputs, participants may not always increase their cash income through increased and more varied agricultural and animal production. Nonetheless, the introduction of improved varieties of chickens, snails, fish, vegetables and fruits will provide the participants with a wider range and greater productivity of agricultural products. The greater variety in itself may increase the chance to find profitable markets.

The forest management activities are unlikely to improve the quality of life of the participants in PSUR. In order to meet the requirements of the forestry regulations a participant has to measure and mark the trees to be cut, locate them on a map and demarcate on the ground the perimeter of the cutting area. The purpose of such activities is to produce legal wood and to conserve the forest's biodiversity and productive potential. They do not, however, increase the volume or quality of the wood or reduce the costs of production. Since no effective control over the illegal cutting and movement of illegal wood exists in Morona Santiago Province, wood customers will

rarely pay more for legal than for illegal wood. The forest management activities will not therefore be likely to increase the net income of the participants in legal forest management.

5. Have the local institutions being strengthened become capable of designing, implementing and managing natural resources programs on their own? What will they need from the outside to continue?

PSUR works to strengthen Shuar federations and municipal governments. Activities for strengthening for municipal governments consist of training in the implementation and use of rural cadaster in the municipality of Sucúa and Logroño. Activities for strengthening the federations consist of workshops in strategic planning and administration, payment of the salaries of technical staff in the Technical Unit of FISCH, the formation of Production Committees in the Shuar Centers, and socioeconomic and environmental policy studies. Through September 30, 2002, PSUR had contracted 5 workshops for the technical staff for the Technical Unit of FISCH, formed and trained production committees in the Associations of Sevilla and Mendez and given their members training in leadership and crafts, and had trained health promoters in the Association of Mankusas.

These restricted activities will not make the local institutions capable of designing, implementing and managing natural resource programs on their own. Although important for natural resources, cadastral surveys are not natural resource management programs. Likewise, the formation of production committees relates only marginally related to the design, implementation and management of natural resource programs. Moreover, the production committees will not necessarily continue to exist after PSUR ends. They are focused on very specific production activities.

6. Have partner institutions been able to foster a mutually beneficial relationship among the NGOs, community groups, and Ministry of Environment officials?

PSUR is set up as a consortium in which each NGO has an equal voice. CARE, however, handles the USAID funds, making it the lead NGO. CARE perhaps has less specific technical expertise than some of its partner NGOs, yet it is responsible for the overall management of PSUR. It has a key role, therefore, in fostering decision-making processes that nurture cooperation, creativity, and synergy between the members of the PSUR Consortium. The survey of participants in the Committee for Conservation Integration, composed of the technical specialists in the consortium, indicate that there is some dissatisfaction with the integration of the different components of the natural resource management component of PSUR. A number of the comments indicate that there has been little participation in the decision-making process by some of the consortium members. Typical comments are that "...the Consortium is not working like a Consortium", there is "...weak coordination between the components," "there is an absence of participation of the associates in the Consortium," "CARE does not provide leadership for the Consortium."

There is no indication that the Ministry of Environment has been significantly involved in PSUR. The Consortium has not fostered relationships with NGO's outside of those that are in the PSUR Consortium.

7. Is PSUR playing an important role in promoting consensus on important policy issues, e.g. served as a catalyst to bring together Ecuadorian organizations to address priority problems?

The PSUR policy study Jurisdictional Proposal for Territorial Administration demonstrates that the priority policy issue concerning the conservation of the Cordillera Kutucú is the establishment there of a Shuar Territorial Circumscription. Four to six years would be required. In the little over two years that remain in PSUR, PSUR will not be able to achieve this result, throwing doubt, if the policy study is correct in its conclusion, on the sustainability of PSUR's natural resource management component. Moreover, through June 2003, PSUR had not taken steps to promote consensus on this policy issue among Ecuadorian institutions.

The content and application of the forestry regulations is another important policy issue that will affect conservation and development in the Cordillera Kutucú. The forestry regulations require the preparation of a complicated cutting plan and payment of a high tax in order to produce legal wood. These stipulations lower the incentive for organized, technical forest management and stimulate illegal, non-technical logging. The Ministry of Environment cannot control logging in Ecuador's vast forests. While the Ministry of Environment has contracted the international company SGS to control the movement of wood on roads, SGS's fees will significantly raise the cost of producing and transporting wood. It will thus further decrease the incentive for legal, technical logging. Although PSUR has supported the preparation of cutting plans, it has not promoted consensus on this forestry policy issue.

Conversion of land use from forest to pasture threatens conservation and development in the Cordillera Kutucú. Pasture formation commonly occurs after the colonization phase has passed, as land becomes consolidated in larger tracts, in areas of scarce labor and poor soils. Low prices for meat, due to the competition of imported meat, may at present be limiting further conversion of forest to pasture. In the future, however, prices may rise and stimulate additional pasture formation. The construction of a road to Yaupi will open a new large, flat area of forest within the Cordillera Kutucú to logging. PSUR, however, has not studied this land use issue, incorporated the issue into its results framework, or promoted consensus on this issue among Ecuadorian organizations.

Petroleum production is the policy issue that at present most concerns the Shuar. Even when the Shuar receive communal land titles, the oil resources under their territories remain the property of the national government. Their extraction therefore will take priority over other land uses. As the CARE PSUR proposal suggests, the exploration and production of oil resources represents both a threat and a source of income to the Shuar. Yet PSUR has not played a role in promoting consensus on this policy issue, perhaps to avoid being identified with petroleum interests.

8. Have community members been trained in forest management and agroforestry and are they applying training?

Only two Shuar Associations, Sevilla and Mendez requested that PSUR provide them with technical assistance and training in forest management and agroforestry. PSUR has trained 15 community members from these association, who are referred to as local technicians. Eight were trained in forest management and 7 in agroforestry. The training in both technical subjects lasted

120 hours. PSUR selected the local technicians from candidates nominated by the Associations. All of the technicians are graduates of high schools with specialization in agriculture. Four of the fifteen original technicians were women. Only 9 of the original 15 technicians remain with PSUR, including 2 women, because of budget cut. They are applying their training within the collaborating Shuar associations. If PSUR's agroforestry and forest management programs were to close down, they would put their training to use on their own farms.

9. Is CARE developing effective and sustainable alternative income generating activities? Is the approach of the alternative income generation appropriate? Is it well structured, with studies, analysis, and access to markets? Are they sustainable?

PSUR's alternative income generating activities consist of the agroforestry and forest management activities undertaken by the local technicians and the marketing activities carried out under the marketing component.

The PSUR agroforestry activities will probably prove to be more useful for improvement of overall productivity of the farm than as a reliable source of cash income. More production of chickens, fish and snails, for example, will almost certainly increase the variety and quantity of food produced on the Shuar farms. Their contribution to increased cash income is more doubtful, given fluctuations in the price of inputs and in market prices. In fact, the more widespread the production of these improved varieties becomes, the more probable that their market price will sink beneath their costs of production. In such a case, only the producers with the lowest costs of production will continue to sell in the market. The improved and new varieties, however, will probably still be produced for home consumption.

The PSUR forestry activities have focused on assisting forest owners to produce wood that complies with the Ministry of Environment's forestry regulations. These regulations raise the cost to the forest owner of selling wood. They require the forest owner to pay the Ministry of Environment US\$2.00 per m², to reserve 40 percent of the volume of the larger trees in the forest from cutting and sale, and to prepare an inventory and associated paperwork. Compliance with these provisions raises the cost of selling wood by something over 15 percent. Compliance does not, however, reduce the cost of cutting trees down, sawing them up into boards, or hauling the boards to the roadside. Nor does it improve the quality of the boards. If the Ministry of Environment were able consistently to identify boards that were cut without its permission and exact a fine that equaled or exceeded the costs of complying with its forestry regulations, then it would be worthwhile for the participants in the wood production chain to produce and buy legal wood.

In fact, however, the Ministry of Environment rarely locates or fines illegal wood. There is no financial incentive, therefore, for forest owners to produce wood that is in compliance with the forestry regulations since if they were to do so, they would almost certainly lower rather than increase their net income from wood sales. PSUR's focus on compliance with the Ministry of Environment's forestry regulations, therefore, is unlikely to increase the forest owner's net income. It is therefore unlikely that PSUR's forestry activities will prove to be sustainable.

Successful enforcement on a wide scale of the forestry regulations, moreover, would be likely to reduce the market for wood from Morona Santiago. The main commercial market for the province's wood is the furniture industry located in Cuenca. Cuenca furniture manufactures,

however, have already begun to import wood from Chile, Brazil, and Peru. Both lower price and higher quality make imported wood attractive compared to wood from Morona Santiago. Legal wood from Morona Santiago is about 15 percent more expensive in Cuenca than illegal wood. Consistent enforcement of the forestry regulations would, therefore, further reduce the ability of Morona Santiago wood to compete with imports.

To make Morona Santiago wood competitive with imported wood requires reduced costs and higher quality. Increases in logging efficiency, improved roads, and higher utilization rates would reduce costs. PSUR has financed some of these alternatives. For example, it financed technical studies on the wood characteristics of “copal” that have raised the demand for this species in Cuenca. PSUR has plans to introduce the use of cable logging and chainsaw guides to reduce logging costs and improve quality.

10. Are the income generating activities (including tourism) contributing measurably or importantly to relieving pressures on protected areas?

PSUR deals with only one protected area, the Cordillera Kutucú Public Protection Forest, which includes most of the Cordillera Kutucú. There is no evidence that PSUR’s alternative income generating activities are contributing measurably or importantly to relieving pressures on the Cordillera Kutucú Public Protection Forest.

The CARE PSUR proposal refers to the “Kutucú buffer zone”. It does not, however, argue that income-generating activities will contribute to relieving pressures on the Cordillera Kutucú Protection Forest. Perhaps this reflects CARE’s experience with the 10 year long SUBIR project, whose purpose was to protect the Cotoachi Ecological Reserve by promoting increased alternative income for people living in its “Buffer Zone”. Yet SUBIR’s final evaluation says that it “...neither proved nor disproved the validity of buffer zone development strategy for achieving conservation results.”

In fact, PSUR’s indicators for its natural resource component are “number of hectares of land in selected areas under natural resource management plans” and “Number of hectares under legal title in or near the buffer zones”. The selection of these easily measured indicators perhaps reflects the finding of the SUBIR final evaluation that “...secure tenure over land and resources provides an essential foundation for longer term solutions to sustainable resource use and protection for biodiversity.”

11. Are the mitigation methods employed effective in reducing environmental impacts of ground disturbing projects? Why or why not? Any documentation? Is the methodology being applied systematically?

The only ground disturbing projects that PSUR finances under the natural resource component in Morona Santiago involves the construction of fishponds. The mitigation measures for fishponds are contained in an Initial Environmental Examination (IEE), which has been approved by the Bureau Environmental Officer. The IEE identifies soil compaction as the negative consequence of fishpond construction. The recommended mitigation measure is to return the sides of the fishponds to their original state.

It is obviously not possible to comply with this mitigation measure. The sides of a fishpond must be compacted or the water will run out of the fishpond. Indeed, water is escaping from the fishpond that PSUR has financed and constructed in Unt Suants. The recommendation of the PSUR technician to the Unt Suants local technician was to drain the pond and to stomp down the earth in order to make its walls more compacted. In any case, the scale of the fishponds is so small relative to the vastness of Morona Santiago or to its many large and small road construction projects that the issue of earth compaction during the building of fishponds sinks into insignificance.

12. In general, is PSUR utilizing previously proven best practices to mitigate impacts of activities? Any documentation?

PSUR has prepared one Programmatic Environmental Assessment (PEA) and two Initial Environmental Examinations (IEE). The PEA contains 25 mitigation measures. PSUR is tracking compliance with these mitigation measures.

Mitigation measure B requires the preparation of an environmental checklist for use during the preparation and implementation of forest management plans. This checklist is being utilized. The checklists document that the potential negative environmental impact of the forest management activities have been considered and measures have been taken to mitigate them.

13. How has government become involved in PSUR? Has the Ministry of Environment cooperated with PSUR? Does the Ministry of Environment have an enhanced presence in Morona Santiago as a result of PSUR activities?

Although the Ministry of Environment has cooperated with PSUR it has not taken a role in its design or implementation. At the national level of government the Ministry of Environment has established the forestry regulations that the PSUR forestry component seeks to implement. As part of the land titling process, PSUR also finances the preparation of Integrated Management Plans in order to meet the requirements of the Ministry of Environment. Likewise, the Institute for Agricultural Development (INDA), part of the national government attached to the Ministry of Agriculture and Livestock (MAG) provides services to PSUR but has not taken an active role in its design or implementation. INDA makes field inspections before it gives its approval of land titling documentation. However, rather than contributing its services for free (as specified in Ecuadorian law), INDA charges PSUR US\$50 per person day for its inspection services. PSUR thus operates as a separate institution, not as a supporting institution to the Ministry of Environment or to INDA. The national government agencies take a passive rather than active role in PSUR.

Local government units likewise have not been closely involved in the natural resource management component of PSUR. Some PSUR activities have, in fact, been undertaken to mitigate rather than support the actions of local governments. PSUR, for example, has prepared an environmental assessment for the road that the Morona Santiago Provincial Council (Consejo Provincial) is constructing roads from Makuma to Taisha.

PSUR has not significantly enhanced the presence of the Ministry of Environment in Morona Santiago Province. Rather, for example, than provide financial resources to the provincial office of the Ministry of Environment, it has supported Jatun Sacha to assist owners of forest to prepare

cutting plans. The Ministry of Environment must approve these cutting plans in order for the forest owner to legally cut trees, even on his own land. Yet of the 40 cutting plans Jatun Sacha has helped to prepare, only a few have actually been sent to the Ministry of Environment for approval. PSUR has not, therefore, increased the flow of cutting permits processed by the Ministry of Environment and in this sense increased its presence.

14. Which activities are having the greatest or least impact?

Land titling produces by far the greatest impact of any of the components of PSUR in Morona Santiago. Secure land titles in the Cordillera Kutucú will change the dynamics of land use and economic growth. It also will make possible the designation of the Cordillera Kutucú as a Circumscription Territorial. If this occurs then a large proportion of the Cordillera Kutucú will remain in possession and under the control of the Shuar. The Shuar will have the means, therefore, to conserve the primary forest that covers much of the Cordillera Kutucú's steeper slopes. In this way, the land titling will have contributed significantly to conservation of soils and biodiversity on a large proportion of about 315,000 ha in the Cordillera Kutucú.

The forest management activities probably have the next largest impact. It can result in cutting down and removal of trees, usually the largest and most valuable stems in the forest. The decision to remove some of the trees in a forest almost always affects in some way the plant and animals species composition, soil characteristics and economic value of the residual forest. The income from the sale of forest products causes impacts on family income and therefore on nutrition, education and health.

It is more difficult to weigh the relative impact of the other activities PSUR finances in Morona Santiago under the natural resources component. In general, the agricultural production activities affect so few people and such a small area of land with such marginal changes in production that they will probably not have a substantial impact. It is impossible to judge the impact of scientific studies since they can be both inconsequential and overwhelmingly significant, depending on their results. It seems unlikely, however, that scientific studies, no matter how well done or interesting, will contribute much to the welfare of the people who live in the Cordillera Kutucú.

RECOMMENDATIONS

1. Augment funds for the land titling component with ECOLEX to achieve approximately 350,000 ha of titled land by 2005

The land titling component of PSUR should not be slowed but rather accelerated so that, the goal of completing land titling in and around the 315,000 ha of the Cordillera Kutucú can be accomplished by 2005. There are several reasons for this recommendation. First, the land titling component has produced significant, tangible results, exceeding its target number of hectares titled. Second, the Shuar leaders repeatedly express that land titling is the priority for the Shuar. Third, the construction of roads around the north and south ends of the Cordillera Kutucú will soon open large areas of lowland tropical forest on fairly flat topography to access by miners, colonists, and loggers. Petroleum production has already penetrated this area. Fourth, legal titles are a requirement for the establishment of a Shuar Territorial Circumscription, which, according to ECOLEX policy studies, is the only form of territorial government that may assure the

conservation of the Cordillera Kutucú over the long-term. Fifth, the issue of land titling and how to carry it out undermines the unity of the Shuar; unity among the Shuar themselves is a requirement for them to successfully defend their land rights against the many interests that seek to take their land rights away from them. The conservation of the Cordillera Kutucú is closely related to the protection of the Shuar land rights.

The Consortium and USAID should examine the PSUR budget to find ways to augment the funding for the land titling component and should set funding levels to accomplish completion of land titling in and around the Cordillera Kutucú by 2005 even if this requires reduced financing for other components.

2. *Provide technical and financial support to the Shuar Territorial Circumscription process*

The ECOLEX policy studies conclude that the creation of the Shuar Territorial Circumscription would lay the basis for the permanent conservation of the Cordillera Kutucú. Yet PSUR's natural resource component has not provided support for this process. If such support is required, in order to achieve the Shuar Territorial Circumscription within four to six years, then PSUR, to achieve its own result of sustainable natural resource management, should provide support to the territorial circumscription process, as outlined in the policy studies. The conclusions of the policy studies, if accepted, almost leave PSUR with no other alternative. If the Territorial Circumscription is not achieved, PSUR risks investing funds on activities that will not be sustainable. Given political events in Ecuador, the next few years are critical for the achievement of the Territorial Circumscription. ECOLEX, moreover, is probably Ecuador's leading institution for resolving territorial problems that involve indigenous peoples in highly biologically diverse areas. The conditions exist therefore, for PSUR to provide technical assistance and financial support for achieving the first steps required for creating the Shuar Territorial Circumscription.

3. *Reduce the complexity and therefore the cost of the preparation of Integrated Management Plans*

The Integrated Management Plans, although well-prepared and technically sound, are expensive to prepare and do not serve the immediate, tangible needs of the Shuar. It would be possible to simplify these plans and thus reduce their costs while at the same time making them more useful to the needs of the Shuar who live in the Centers. This cost saving may be one source of funds for the recommended expansion of the land titling program.

4. *Provide technical expertise for the design of an effective, widespread silvopastoral extension program*

PSUR has already begun to create excellent conditions for an effective, widespread silvopastoral extension program. Working through the Shuar Associations and federations, it would be possible to mount a large-scale agroforestry and silvopastoral extension program that would focus on increasing the quantity of commercial tree species growing on existing pasture lands within or near the Cordillera Kutucú. The design of such a program, however, should be entrusted to a short-term technical expert with extensive previous experience in silvopastoral programs in the Ecuadorian Amazon. The program should provide a viable, proven technical

means to increase the quality of pastures in combination with commercial timber trees. In order to design such a program, the silvopastoral IEE that was presented in mid-2002 to the BEO would have to be approved promptly. (The Mission notes that the IEE has now been approved.)

5. *Focus the forest management program on lowering logging costs, increasing logging safety and raising the quality of sawn boards.*

The present forest management extension activities focus on marking trees and preparing Simplified Cutting Plans. These plans, although they may reduce the impact of logging on biodiversity, do not necessarily contribute to the welfare of the forest owner. A more productive forestry activity for PSUR would be focused on increasing the quality of sawn wood while reducing the costs and raising the safety of its their production.

6. *Reduce the number and complexity of the PSUR mitigation measures*

The mitigation measures for PSUR are not clearly focused on the negative impacts that can be attributed to PSUR itself. Therefore, they are excessive in number and detail. They detract funds and attention from achievement of the results of the natural resource management component, rather than contribute to the achievement of those goals. The mitigation measures for PSUR should be simplified and clearly related to PSUR's activities.

VI. FINDINGS — LOCAL GOVERNMENT STRENGTHENING

THE ECUADORIAN LOCAL GOVERNMENT SYSTEM

The Ecuadorian System of Government is that of a unitary form of Government, with a political division in Provinces (States), Cantons or Municipalities (Counties), Parroquias (Parishes) and Communities. The Provinces have an appointed Governor, which is a representative of the President in the Province, an elected "Prefecto", and Provincial Council, in charge of Central Government investment in Infrastructure in the Provinces. The Mayor and Cantonal Councils are also elected for each one of the 219 Country municipalities. The number of council members depend on the population of the Municipality and may be integrated by 15 Council members in those Municipalities with more than 400,000 inhabitants, 13 for those with more than 200,000, 11 for those with more than 100,000; 9 Council members for those hat have a Mayor or are Cantonal capitals, 7 for the rest of municipalities, except for those of the oriental region , the Amazon and the Galapagos Island which have only 5 members. The Cantons or Municipalities are the lower local government level with administrative and financial autonomy. However, the Central Government has introduced the concept of "Juntas Parroquiales", within the Cantons, with local authorities elected by the community and responsibility for the local development in coordination with the Municipalities. The Central Government provides these "Juntas Parroquiales" with a minimal amount of resources to pay for operating expenses. In summary, in Ecuador there are three levels of local authorities: the Provincial, the Cantonal (Municipal) and the Parish. The municipal law creates the Ecuadorian Municipal Association and all the country's municipalities have to be members of the Association. Membership fees are defined by the law and are withheld automatically from the municipal transfers.

While the national policy framework for local governments allows municipalities to generate local revenues, it does not provide any incentives for them to do so. By law, local governments

receive 15 percent of the national budget, but they do not have to generate local revenues to receive these funds. Local political energy is directed to changing the status of the local government so that one's allocation from the Central Government is larger. For example, communities try to change their designations to parishes, while parishes try to become municipalities. Having almost all revenue come from the Central Government encourages patron-client relationships between levels of government and between local government and its citizens. It also encourages non-productive investments.

THE CONCEPT OF STRENGTHENING LOCAL GOVERNMENTS

Strengthening local governments means helping the municipalities to create the local capacity to provide basic services to the community. The local authorities are elected by the community to organize a government and to plan and develop the municipality benefiting all community members and providing welfare to the families. Strengthening a municipality is the result of a comprehensive effort to organize all the managerial and technical processes performed by the institution: for example, its organization, operating manuals and training of the staff performing those functions; the administrative process, tax payer identification and tax collection activities, financial, public services, community participation and promotion, and urban planning and control. The Municipal Law provides the authority to collect local taxes and fees for services provided as a means to generate resources for the functioning of the local government and for the provision, on a sustainable basis, of the local services. An effective local government is expected to generate its own resources for operating expenses and service provision and provide some investment capital to improve municipal infrastructure.

PSUR APPROACH

PSUR focuses on achieving two major results:

1. Local Governments with adequate consultative processes operating; and
2. Local Governments that have improved basic services.

PSUR intends to work in 26 municipalities, but with different levels of assistance. CARE proposed and USAID accepted a modification to categorize the municipalities in three different groups, according to the level of commitment with the program, previous involvement of other donors, prospects for collaboration with other CARE interventions, the municipal population, etc.

The three levels of participating Municipalities will try to achieve different levels of results as follows:

1. Thirteen (13) Municipalities are categorized as level 1 (Saraguro, Quilanga, Gonzanama, Chaguarpamba, Olmedo, Huaquillas, Catamayo, Espindola, Celica, Limon, Palora, Twinza and Huamboya). Adequate consultative processes for these municipalities is defined as: "Juntas Parroquiales" have met, discussed and prioritized their needs; the municipality has improved its planning capacity; and the municipality has incorporated community needs in its planning process. Having improved basic services is defined as: the municipality will have an improved capacity to manage its computer system; the

municipality will have a methodology to prepare Development Plans; and the municipality will be aware of bi-national commerce regulations.

2. Five (5) municipalities are categorized as level 2 (Zapotillo, Puyango, Las Lajas, Paltas y Mendez). Adequate consultative processes for these municipalities is defined as: (in addition to the level 1 activities) the Municipality will have established a Cantonal Planning Committee; a variety of people participate in the Committee; and the Committee has a work plan. Having improved basic services is defined as: (in addition to the level 1 activities) the municipality has improved capacity in project design and management and has a fees pricing system.
3. Eight (8) municipalities are categorized as level 3 (Calvas, Arenillas, Pindal, Macara, Sozoranga, Morona, Sucúa y Logroño). Adequate consultative processes for these municipalities is defined as: (in addition to the levels 1 and 2) the Municipality has recognized the Cantonal Planning Committee; the Cantonal Planning committee has its own regulations; the municipality has a Municipal Development Plan, and the community has received leadership training. Having improved basic services is defined as: (in addition to the level 1 and 2 activities) the municipality has an improved internal organization; the municipality has strengthened capacity to formulate its local policies; the municipality has its own strategic plan; the municipality has a municipal information system; the municipality has a categorization system to apply to fees; and bi-national activities are implemented.

As of September 30, 2002, CARE reported achievements in four level 1 municipalities: Quilanga, Olmedo Espindola and Chaguarpamba. At the time of the field visit by the Evaluation Team, the program was working with 9 additional municipalities in this category: Saraguro, Quilanga, Gonzanama, Chaguarpamba, Olmedo, Huaquillas, Catamayo, Espindola and Celica; in four level 2 municipalities: Zapotillo, Puyango, Las Lajas and Paltas; and in four level 3 municipalities: Macara, Sozoranga, Arenillas and Sucúa.

The Team will touch on garbage collection and sanitary landfill activities under this component as well, since these activities are implemented at the municipal level.

SITE VISITS

Between June 4th and June 10th, two of the Team members traveled to the border provinces of Loja and El Oro, and between June 12th and 14th to Morona Santiago. During these visits, the Team met with local authorities of the Provinces, Municipalities, and Parishes, as well as, with community groups to review the program activities and results of the local government component and garbage collection and sanitary landfill activities. These site visits, in combination with a review of national policies and interviews with Ecuadorian local government specialists, helped form the Team's responses to a series of questions posed by USAID/Ecuador:

1. Is the approach the correct one to strengthen local governments and to reach the component's objective and overall program objectives?
2. Are adequate consultative processes in operation and what is the benefit of this for local governments and the population?

3. Is service delivery management being improved and what are the likely benefits for the local government and population?
4. What is the sustainability of this component?

Approach: CARE has done a great job implementing what the institution committed to do in its Cooperative Agreement. All the municipalities visited have expressed high marks for the work done by the CARE consultants and the general help they have received. The individual activities, such as sanitary landfills and computer systems, all seem to be well designed and well executed. The question is whether the approach taken is the best one. It should also be noted that this component of PSUR has, by design, gotten off to a slower start than the other two components. Therefore, the Team was seeing project activities that were in an earlier stage of implementation; for example, none of the level three municipalities visited are close to being counted as successes yet, and the Team's comments should be taken with a grain of salt

PSUR has given high priority to helping parishes and municipalities prepare Development Plans in a participatory manner. According to the project design, achieving both "Adequate Consultative Processes" and "Improved Management of Basic Services" requires improvements in planning. Planning activities are the only interventions that will be carried out in all 26 municipalities (except for the garbage collection and sanitary landfill activities carried out under the social services component) and are almost the exclusive program intervention in the 13 level 1 municipalities. Project implementers maintain that the preparation of Cantonal Development Plans has been important for changing the "mentality/behavior of paternalism." The evaluators believe that while the promotion of citizen participation in developing plans is nice, it is unlikely to have lasting effects on paternalism unless the participation is related to budget decision-making, not plans, and that the budget being discussed has a significant portion (ideally 50%) of revenues generated locally.

Only eight municipalities will have an intensive service delivery improvement program. They will receive a mix of more planning activities, improvements to the management of computer systems provided by the Government of Ecuador, help with designing and managing projects, and improvements to several other systems.

In the Team's opinion, there seems to be an imbalance between the amount of effort the program is directing to strengthening the capacity of citizens and civil society to articulate their demands under ensuring adequate consultative processes and the amount of effort the program is directing to increasing the capacity of the local governments to respond under the improving management of basic services. This could lead to a very frustrated public. It appears that the program design assumed that the Ecuadorian State Bank (BEDE) would be stepping in to provide additional capacity building and internal management strengthening for the municipalities. Unfortunately, BEDE does not appear to be active in the sites visited.

ADEQUATE CONSULTATIVE PROCESSES

As stated above, the program strategy to achieve adequate consultative processes is to support the development of participatory planning at the parish and municipal levels. The program has worked with the local organizations (at the cantonal, parish and community levels), training the organized groups on how to better present the needs and how to demand attention from the local

authorities. In some cases, the municipal planning process has been organized by civil society, in other cases the planning process has been organized by the municipality. The Team believes that the latter model may increase the likelihood of the plan being utilized.

Community training and empowerment has been greatly advanced by program interventions at all levels (municipal, parish and community). Most program resources are directed to developing and prioritizing needs in a broad planning document. Relatively few resources have been allocated to-date for activities that promote a consultative process related to municipal decision-making, for example for making investment decisions against budget parameters or improving basic services. Many Ecuadorians expressed their opinion that Ecuador has too many plans, most of which are ignored. While the program is promoting follow-up committees to ensure that the plans it is helping to develop do not have the same fate, the jury is still out.

IMPROVED MANAGEMENT OF BASIC SERVICES

Only eight municipalities will receive a broad range of strengthening activities. While receiving more assistance in more areas, the Team was not able to determine whether the approach being followed would result in a marked improvement in the management of basic services. Obtaining significant improvements for levels 1 and 2 seems unlikely. On the one hand, it is not clear how the types of interventions being implemented will fit together and lead to an improved delivery of basic services other than garbage collection. The Team did not find analyses and internal strategy documents that provided compelling reasoning for the program choices made. On the other hand, the highest priority need of the municipalities is to generate more local revenues. Within the improved management of basic services program, only two activities, management of computers (indirectly) and fees pricing system, help address the financial capacity of the municipality.

The improvement of municipal finances is one of the most important indicators of the strengthening process. Resources from donors and central government transfers need to be supplemented by local community revenues in the form of taxes, fees and contributions that the municipalities are entitled to charge and collect by law. All the municipalities visited by the Team demonstrated a significant financial weakness. Not one of the municipal governments interviewed is collecting the resources required to finance their operating expenses. An example of this situation is the following budgetary situation in two of the Cantons visited:

	Cantón Pindal	Cantón Zapotillo
Local Gen. Revenue	168,616	89.900
Other Revenue & Tra.	832,396	1,909,630
Total Revenue	1,001,012	1,999,530
Operating Expenses	190,353	541,153
Capital Expenses	810,659	1,458,377
Total Expense	1,001,012	1,999,530

In Pindal, for each dollar generated as local revenue, it needs to get \$0.13 to finance its operating expenditures. In Zapotillo, for each dollar generated in local revenues, it needs an additional \$5.01 to finance its operating expenditures.

Most of the Municipalities visited are in a similar situation as the ones shown here. The effect of a lack of locally generated resources leaves the local government at the mercy of the central government and when it wishes to transfer funds.

Addressing poor local government revenue generation is a difficult task, especially given the Municipal Law. However, where local authorities have indicated a willingness to increase local government revenue, the project should place high priority on three areas: taxes, fees and contributions. Taxes are general charges imposed by the local authorities. The most important is property taxes. In Ecuador, municipalities can determine property tax rates within a range determined by the central government. Fees are charges to community members to pay for services provided by the municipality, such as garbage collection and disposal, water slaughterhouses, and sewerage. Fees should at least pay for the cost of providing the services. Contributions are charges made by the municipalities to specific sections of the community due to the implementation of community improvements that will increase the property values of specific property owners. The property owners should pay for the prorated cost of the improvements. While PSUR does provide some assistance to enhance local revenue generation, for example helping to computerize tax rolls, this is being done in relatively few communities and is not being addressed intensively.

SUSTAINABILITY

The sustainability of the implemented systems is receiving a fair amount of attention by project personnel. This issue has at least two dimensions. First of all, many of the system improvements being implemented, from garbage collection to computers, require additional operating expenses. Thus, as discussed above, additional attention to revenue generation will be essential to ensure that new systems continue to be operated and maintained. Secondly, high staff turnover is part of the political process in Ecuador, as it is in most Latin American countries. Every time the government is changed, a high percentage of staff will also change. This high rotation of staff requires a permanent training program that is not easy to maintain and finance. Is there a solution to this problem? The only probable solution is to prepare friendly to use system manuals and procedures that could reduce the cost of re-training new staff and the implementation of strong systems that can survive no matter who takes over. Another possibility could be the creation of a municipal personnel bank, managed by the AME and offered to new authorities as a contribution with the municipal system.

RECOMMENDATIONS

1. Adjust activities within this component to:
 - a. Ensure that a better balance is achieved between the strengthening of the community to demand and the strengthening of the municipality to respond.
 - b. During the second half of the project, place less emphasis on planning and more on translating plans into more consultation on improving service delivery and investment.

- c. Cut the number of sites receiving planning assistance and place more emphasis on local revenue generation.
 - d. For system improvements, consider grouping municipalities, developing training program materials and procedures, and promoting adoption of best practices.
2. USAID needs to address the fact that national local government policy does not provide an incentive for local government resource generation.

VII. FINDINGS — INDICATOR REVIEW

The Team was asked to determine the reliability of indicator data reported by CARE as of September 30, 2002.

METHODOLOGY: The Team reviewed the overall reporting system used by CARE and compared the data reported in the CARE system against data on the ground at sites visited and against the documents used to verify the data. The Team then made a judgment as to whether the data being reported in the documents was the most accurate data available.

FINDINGS — OVERALL SYSTEM: The CARE monitoring system is quite sophisticated. CARE regional offices provide indicator data to Quito based on specific documents that have been identified in advance. For example, the number of beneficiaries for water systems and bathrooms are contained in agreements that are signed with the community and municipality at the time that the systems are turned over to the communities. CARE/Quito enters the data into a database that can be used to generate reports, but only if the verification document is attached.

FINDINGS — NUMBER OF BENEFICIARIES IN THE TARGET REGION AND YEARLY BENEFICIARY TARGETS: The number of beneficiaries in the target region whose lives are improved by participation in all of the PSUR project components is calculated by adding together the number of beneficiaries of potable water systems, bathrooms, garbage collection programs, land titling, and natural resource plans. While a simple number to calculate, this number overstates the number of beneficiaries of the program. In fact, the target number of beneficiaries (529,471) exceeds the total target population (448,000) of the 26 cantons included in the program. Both the planned and actual number of beneficiaries are overstated because: 1) the target number still includes income generation activities; 2) water and sanitation usually benefit the same people and are counted separately in setting this target and counting actual beneficiaries; and 3) land titling and natural resource plans usually benefit the same people as well but are both counted in setting the target and counting beneficiaries. In addition, the number of beneficiaries for ASSA that has been rolled into the PSUR numbers is the entire population of the six cantons it worked in. This seems to be an overstatement. Since the project has faced a reduction in yearly funding levels, year by year beneficiary targets may also need to be adjusted, and stretched out over a longer life of project.

RECOMMENDATION: The number of beneficiaries in the target region should be calculated using the number of beneficiaries of potable water systems, garbage collection programs, and either land titling or natural resource plans. The overall target for the program should be adjusted accordingly. The ASSA numbers should be recalculated to be more realistic. Year by year targets should be adjusted and brought in line with the actual availability of funds.

FINDINGS — SOCIAL SERVICES: The Team reviewed the number of beneficiaries for water systems at three sites (the fourth site is still under construction and no data has been reported) and compared these against numbers reported by CARE. In all three cases the numbers in the documents of verification and the numbers reported in the CARE system were different:

	Document	Reported
Suanamaca	650	834
Tronco Quemado	552	450
San Luis Ininkis	318	2850

The Team reviewed the number of beneficiaries of bathrooms at the only site visited and compared these to the numbers reported by CARE. The numbers were very close.

The Team also reviewed the number of new or improved garbage collection programs by looking at a sample of verification documents and by comparing the Arenillas verification document to the Team's site visit. The number of beneficiaries is simply the population of the town served and is taken from the Social Indicator System of Ecuador. All these numbers seem reasonable.

The Team also reviewed how the number of beneficiaries was calculated for the water and sanitation verifying documents and whether these seemed to be the most accurate. The Team found that the number of beneficiaries was calculated by using the number of families and multiplying that by an average figure for number of people living in a house. However, more accurate data is available.

RECOMMENDATION: In the future, the number of beneficiaries for both water and sanitation activities should be calculated by using the number of houses served at the time of delivery (in the case of water, the water user list used to collect water fees is accurate) and the actual number of people living in each house at the time the initial community survey was completed. Both the number of families served and the number of beneficiaries would be put into the delivery document (Acta de Entrega), which is also the verifying document. CARE/Quito would input the number of beneficiaries from the verifying document into the database. These numbers should then be used in the variety of publications, including information pamphlets that CARE produces to avoid confusion.

FINDINGS — LOCAL GOVERNMENT

There are two indicators for this component: the number of local governments with adequate consultation processes; and the number of local governments that have improved service delivery management. Both of these indicators are measured using a matrix of benchmarks. The Team visited only one site (Sucúa) that was reported as having met the benchmarks in FY 2002 of improving their ability to manage computers, having a methodology to prepare municipal development plans, and knowing bi-national commercial regulations. The Team checked the verifying documents and agrees that Sucúa met the basic benchmarks. The Team also pulled three other files at random (Olmedo, Macara, and Quilanga) and checked that there were documents to verify the results reported. All were in good order.

More generally, the Team believes that the indicators are very complex and demand a lot of paper work, but are not very good at describing progress being made in strengthening local governments. Local governments are counted only once when they meet a certain threshold. The service delivery indicator for level one cantons only looks at three, and in the Team's opinion, minor competencies. For example, for Sucúa, the methods of verification include the attendance of people at computer and how to develop a Cantonal plan courses, as well as the distribution of materials that explain commercial regulations affecting cross border trade.

RECOMMENDATION: That USAID and CARE completely redo the local government indicators with an eye to simplifying the monitoring and verification process. Fewer indicators with more narrative on qualitative changes might more effectively describe the changes that the program is trying to achieve.

FINDINGS — NATURAL RESOURCES MANAGEMENT

There are four indicators for this component: the number of hectares of land under NRM plans and number of beneficiaries, and the number of hectares under legal title and number of beneficiaries. The Team reviewed a sample of verifying documents and found that the numbers reported in the verifying documents and the numbers reported to USAID were consistent. However, for both land titling and natural resource plans, only a small proportion of the overall number of beneficiaries is directly benefited. The larger number of beneficiaries are indirect beneficiaries of the program. Since there is a large measure of judgment in determining indirect beneficiaries, the Team recommends that only direct beneficiaries be counted. The Team believes that this component of the program is better justified on preserving the biodiversity of the area, not the number of beneficiaries.

VIII. FINDINGS — MANAGEMENT

CARE

Overall, the PSUR program appears to be well managed. The staff appear to be knowledgeable about and actively applying CARE programming and administrative systems. The Team's observations are in line with the September 2002 financial report carried out by Deloitte & Touche.

Staffing: PSUR currently has 56 staff positions, of which 42 are full-time and 14 are part-time (50-75% of time dedicated to PSUR). This is down from the October 2000 figure of 68 staff positions. Most of the staff are assigned to either the Loja or Macas regional offices. The Loja office has three sub-offices out of which the social services teams work. These figures do not include staff of other organizations that are collaborating on PSUR, some of whom are collocated in regional offices. As of February 2003, the five positions related to the Income Generating Component were eliminated.

Structure: Fernando Solis is the overall program manager. Pedro Carrasco is the Loja regional manager and coordinator of the social services component. Mercedes Duchicela is the Macas regional manager and coordinator of the natural resources component. Fernando Martinez is the coordinator for the local government component. Daniel Selener is the coordinator for monitoring and evaluation.

Relationship between national office and regional offices: CARE manages these relationships in much the same way that USAID/Washington manages its relationships with its overseas missions. The regional offices propose annual work plans that are reviewed by the National Technical Committee (NTC) in Quito. The NTC approves the work plan and the overall operating and program budgets, the latter broken down by major components. The regional offices have a fair degree of autonomy with respect to program implementation and administrative expenditures such as travel. The regional offices are responsible for controlling car expenses and keeping track of counterpart contributions.

Monitoring and control of expenses: CARE has robust systems for controlling program and administrative expenses. For example, counterpart contributions are followed using specific tracking sheets and there is a log in each car to keep track of gasoline and related expenses. The national office monitors car expenses against a target profile for each car.

Program monitoring: The program staff meet quarterly in the field to review progress against annual work plans. GANNT charts are produced to monitor progress of activities.

Every six months, there is a review of where the project stands with respect to the logical framework of the project. This is recorded in the semi-annual report to USAID. There does not seem to be a time when either CARE on its own, or with USAID, takes a step back and looks at the project design to see if it is still valid.

Managing for results: There seems to be an assumption on the part of both USAID and CARE that the project design is sacrosanct, and that all people need to do is to monitor whether the program is meeting its indicator targets, including detailed targets within the natural resources and local government components. There is not enough attention being given to reviewing progress against the intermediate results of the program, (for example whether adequate local government consultative processes are taking shape) and how to adjust programmatic activities to ensure maximum impact. The structure of the semi-annual report reinforces this tendency. It is a compendium of planned versus actual indicators down to a very minute level of detail. The report itself keeps everyone focused on accomplishing specific activities instead of attaining broader results.

USAID

USAID actively oversees PSUR. The project manager is Edgar Guillen. A team that includes project development, natural resources, contracting and financial specialists backs him up. The head of the team is Rick Garland.

The PSUR team reviews CARE's annual work plan and semi-annual reports, and conducts frequent field visits. The project manager introduced the use of GANNT charts to track activities. CARE now uses these during their internal quarterly project meetings.

RECOMMENDATIONS

1. That USAID and CARE meet once a year to review past achievements and to discuss strategic issues with respect to the coming year's work plan. This might include a review to determine which activities appear to be contributing the most to intermediate results.

2. The semi-annual report should be streamlined and not go into extreme detail. The most useful section appears to be the narrative analysis.
3. Program management should be less driven by meeting 100% of lower level indicator targets. For example, if project and USAID managers continue to use a matrix to follow local government activities, a target of 75% completion should be used for determining whether the component is on track. This allows some flexibility to not pursue activities that are facing a difficult environment.

ANNEXES

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ANNEX A

EVALUATION SCOPE OF WORK

MID-TERM EVALUATION OF THE ECUADOR BORDER REGION DEVELOPMENT PROGRAM: ASSA (AGUA, SANEAMIENTO Y SALUD AMBIENTAL) AND PSUR (PROGRAMA DE SOSTENIBILIDAD Y UNION REGIONAL) PURPOSE OF THE EVALUATION

The contractor will conduct a mid term technical evaluation of the Ecuador Border Region Development Program (1st Phase ASSA 518-A-00-99-00099-00, from July 20, 1999 to February 28, 2001; and 2nd Phase PSUR 518-A-00-OI-00001-00, from October 30, 2000 to September 30, 2002) financed by USAID/E and implemented by CARE and its partners (World Conservation Society, Jatun Sacha, EcoCiencia, Arco Iris, ECOLEX, SNV, Plan Internacional, OPS-OMS, Pastoral Social, Diálogo 21, Universidad Técnica de Loja). The purpose of this technical evaluation is fourfold: 1) assess Program accomplishments as per those proposed in the Cooperative Agreements with CARE and subsequent work plans; 2) assess and validate achieved results reported by CARE and its partners for USAID Ecuador's Performance Monitoring Plan; 3) evaluate ASSA and PSUR's regional program approach and its impact in the social and economic development of the region and, 4) identify lessons learned that CARE and its partners might make use of while continuing to implement the Ecuador Border Development Program (PSUR).

BACKGROUND

In October 1998, the presidents of Ecuador and Peru signed a Peace Agreement ending over a century and a half of often bloody conflict over their shared border. The United States, as one of four Guarantor nations, has invested considerable time, effort and resources in helping the parties to achieve this peace. As part of this peace agreement, the two governments committed themselves to providing tangible development benefits to the population living in the border region. The final settlement was built on a series of agreements, including a Binational Fund for Peace and Development designed to compensate difficult political concessions with investments to stimulate growth and improve living conditions in an area impoverished by years of conflict. The presidents of both countries were initially criticized for their controversial stand on achieving peace and, while public opinion is slowly changing, citizens are expecting to see concrete benefits from the peace settlement. Towards this end, both governments are working to implement the Binational Border Development Plan. USAID, in support of these initiatives, financed \$1.5 million of border integration activities in FY 1999 (1st phase), with an increase of \$20 million over the period FY 2000-2005 (2nd phase).

During the two phases of this Program, CARE has been the principal implementing partner for both phases. The goal for Phases I and II was to improve social and economic conditions of inhabitants along the Peru-Ecuador border thereby promoting border integration. According to

CARE's report, during Phase I, the project was found to have achieved various substantial results and to have launched initiatives with a high probability of future success (something that this evaluation will have to confirm). The initial trench of \$1.5 million was used to support only social services with a focus on health water and sanitation. This phase started in July 20, 1999 and ended February 28, 2001.

Phase II started in October 2000 with the signature of a new cooperative agreement (518-A-00-01-0001-00) with CARE for \$ 19,237,000. The project was designed for five years, and it is to terminate in September 2005. To date, a total amount of \$12.4 million has been obligated.

The evaluation called for in this Scope of Work focuses on Phase I (ASSA), which covers the period July 20,1999 to February 28, 2001; and, Phase II (PSUR), which covers the period October 30, 2000 to September 30, 2002.

The project has been implemented by CARE and its partner NGOs, along with secondary level organizations and local communities.

PROGRAM ACTIVITIES

Phase I. ASSA:

The project provided financing for construction activities, TA, training and project planning skills in the areas of health, water, sanitation, solid waste collection and municipal management in Loja Province. Specially, the activities carried out included:

- ▶ Design and construction of potable water systems serving at least 10,000 persons. Priority for construction or rehabilitation of the systems were those projects previously identified and prioritized through a community/municipality planning process in six border cantons of Loja Province.
- ▶ Development and implementation of appropriate sanitation systems for the families and communities receiving new/improved water systems, and/or additional beneficiaries where appropriate.
- ▶ Design and implementation of solid waste collection and recycling systems in five to ten communities.
- ▶ Health education interventions in communities, schools and health centers, especially related to the improved water, sanitation, and solid waste activities being implemented under the Cooperative Agreement.
- ▶ Strengthening of existing health delivery systems in border cantons. This was to include minor construction, renovation and equipping of small health facilities; disease prevention and control; and innovations in management, organization and community financing of health services.
- ▶ Development of (and working with) local community health boards or similar "comités de gestión local", with the participation of GOE organizations, municipalities and community organizations. The implementing NGO partner adopted a methodology

consistent with the process already developed in Loja Province in the "Espacios Saludables" project, which required careful negotiation and consensus building.

Phase II. PSUR:

The purpose of the Programa Sur (PSUR) is to improve the quality of life of impoverished households with potential for change along Ecuador's border with Peru in socially and environmentally sustainable ways. Improve social and economic conditions of the inhabitants along the Peru-Ecuador border, thereby promoting border integration. By focusing on the most needy and threatened sectors in these border areas where CARE and its partners are already active, it will also contribute to the fulfillment of the partner organizations' long-range plans.

The expanded, multi-sector program extended USAID's focus to all of the cantons of Loja Province, three of the cantons of EI Oro Province, and eight cantons of Morona-Santiago Province. Improving the lives of inhabitants in these border areas as well as facilitating coordination of development objectives with Peru are key elements of the Peruvian and Ecuadorian government's Bi-national Plan.

USAID/Ecuador's support is focusing on three development results, with a fourth providing cross-cutting support for the other three.

- 1. Income Generation:** The first result pursued is expanded income generating activities for small and micro entrepreneurs in the target regions, including development of micro-enterprise lending activities, support for extension of private banking activities into the region, technical assistance to small and micro entrepreneurs to improve their production and marketing capabilities, and support for bi-national trade fairs to increase commerce in the border regions.

After experiencing lagging results achievements in this component and an assessment by microfinance experts from USAID, Poverty Relations SO, USAID/Ecuador Special Objective Team (Spa 11) concluded that it was best for all parties to terminate the "Income Generation Activity" component. This decision relates to changes in the circumstances surrounding future funding, and it was decided that this partial termination alternative would cause the least impact on the overall Program.

The termination became effective as of the close of business on August 30, 2002. However, USAID requested CARE to suspend this activity o/a March, 2002. Under this SOW, we are not going to evaluate this component.

- 2. Access to Social Services:** The second result pursued is increased availability and access to social services, with emphasis on health, water, and sanitation. Through participatory community involvement, USAID will support construction of public health infrastructure (mainly potable water, sanitation facilities, solid waste disposal systems), increased health education activities, selected support for improved health facilities, and assistance with construction of other important community infrastructure.
- 3. Natural Resources Management:** The third result is improved natural resource management in selected areas along the border. Activities related to this result will focus primarily on the Cordillera de Kutucú region of Morona-Santiago Province, including the

Upano Valley and the trans Kutucú lowlands region. USAID will support efforts to increase the level of conservation of the protected area of the Cordillera de Kutucú, as well as sustainable forest management and land titling in the buffer zone, and technical assistance in production and marketing of timber and non-timber products, including agroforestry, livestock production, ecotourism, handicrafts, and other economic activities near the buffer zone.

4. **Effective Local Government:** The final area of program emphasis will be effective decentralization of services through local government strengthening in selected municipalities in the target areas, in support of the other three initiatives described above. Efforts to support the municipality will include strengthening of communication channels between the municipality and community groups, support for creation and development of self-management committees at the village level; training in computer use and project design and implementation; development of cost accounting systems for municipal services; and support for cross-border activities between municipalities in Peru and Ecuador.

STATEMENT OF WORK

1. **Preliminary Research:** The evaluation team shall review at least the following documents to familiarize itself with the ASSA and PSUR programs:
 - ▶ Cooperative Agreements No. 518-A-00-99-00099-00 and 518-A-00-01-00001-00 with CARE and its amendments
 - ▶ USAID/Ecuador's Performance Monitoring Plan for the Southern Border Program
 - ▶ Sub-agreements signed by CARE with counterparts, as appropriate
 - ▶ CARE Annual Work Plans and semi-annual Reports
 - ▶ Validation report of USAID/Ecuador Indicators, spa 11, 1997
 - ▶ USAID/Ecuador, R4 Reports for FY 1999,2000 and Annual Report FY 2001 and 2002 (those sections relating to the Southern Border Program)
 - ▶ Relevant trip reports
 - ▶ The IRG/Doug Pool assessment of forestry projects in 6 countries
 - ▶ PSUR IEE determinations
 - ▶ Minutes of the spa 11. Team meetings
 - ▶ Minutes of Binational meetings
 - ▶ DAI/SALTO report on Income Generation
 - ▶ SUBIR evaluation and relevant trip reports
2. **ADS Requirements:** According to ADS 203.3.6 an evaluation is a relatively structured, analytical effort undertaken to answer specific program management questions. An evaluation can provide a systematic way to gain insight and reach judgments about the effectiveness of specific activities, the validity of a development hypothesis, the utility of performance monitoring efforts, or the impact of other changes in the development setting on achievement of results.

Performance Monitoring and Evaluation TIPS No. 11, states that USAID operating units need to know not only what results were achieved but also how and why they were achieved, and what actions to take to improve performance further. Some evaluation

purposes are the following:

- ▶ Explain unexpected results (positive or negative)
- ▶ Determine if customer needs are being met
- ▶ Assess net impacts of USAID activities
- ▶ Identify unintended impacts
- ▶ Explore special issues such as sustainability, cost effectiveness, relevance
- ▶ Make action recommendations for program improvement
- ▶ Distill lessons for application in other settings
- ▶ Test validity of hypotheses and assumptions underlying results frameworks

The evaluation team is expected to go beyond the simple examination of inputs, outputs/results and the design document to explore these broader issues. This evaluation may therefore provide valuable information for more effective implementation of PSUR, in the coming years. As per ADS 203.3.5.2, performance data must be assessed no less than once every three years in order to ensure that performance information is sufficiently complete, accurate and consistent. Some appropriate techniques for such an assessment include: a) review reports from a partner and determine that they are sufficiently consistent to be considered reliable; b) site visits that can serve to spot check reliability; c) in some instances, holding discussions with data source agencies about their quality assurance procedures and confirming these with other data users, provided that these discussions are sufficiently detailed, cross checked, and well documented. The evaluation team is expected to effectively assess performance data for Programa Sur. In all cases, the goal is to ensure that USAID/Ecuador is aware of data strengths and weaknesses, and the extent to which the data can be trusted when making management decisions.

3. Illustrative Issues and questions to be Addressed: This evaluation will consider, but not necessary restrict itself to, the following issues/questions:

A. *General:*

The evaluation will focus primarily on the Cooperator's ability to achieve planned results; measuring overall progress against the outputs projected in the logical framework and approved work plans. It will also define "lessons learned" by integrating management of protected areas with sustainable development practices to be identified and implemented at the community level. The economic, social and institutional sustainability of the practices and models developed under Phase I and II should receive very close attention, including the degree to which CARE/Ecuador has succeeded in fostering a mutually beneficial relationship among the NGOs they are working with and the relevant GOE agencies to support sustainability. The findings from this evaluation will provide recommendations to the participating communities and organizations on their continuation of activities initiated with support from PSUR.

- ▶ How significantly and measurably has ASSA (phase I) and PSUR (phase II) contributed to the Mission's SpO 11 objective?
- ▶ What have been Phase I and II's most important impacts, positive or negative, and if these were unexpected, what are the lessons learned?
- ▶ How the PSUR affected the migration process in the area of intervention.
- ▶ What do the principal clients of the Project say about the nature and quality of the services provided? Were the intended customers well served?
- ▶ Which interventions have worked well and why? Which interventions did not

- ▶ produce the expected results, and why?
- ▶ How effectively are the 3 components integrated at the field level?
- ▶ What has been the mix of implementation mechanisms and agreements within the CARE consortium? Have they met client needs? Please assess the effectiveness of CARE in managing these agreements, e.g. have high-quality staff (long and short-term) been selected consistently for implementation of activities?
- ▶ What has been the role of women and other minority groups in the project?
How have women and other minority groups been included in field activities?
Is gender-specific data collected and used for project planning?
- ▶ Has the project reached effectively the target population and achieved
- ▶ expected benefits?
- ▶ How effective has CARE's leadership been in insuring that the field activities keep on track towards accomplishment of planned results? Have the three component managers provided high-quality technical expertise and leadership to achievement of project objectives?
- ▶ How effective is the administrative support provided by CARE/Quito (e.g. contract management, human resources development, commodity procurement)? Has CARE provided sufficient staff, time, and resources to manage the program? Are there administrative support issues that need to be addressed?
- ▶ Cost-benefit. Do the achieved results in all the components appear to justify the investment made by USAID/Ecuador in this program?
- ▶ Determine whether the necessary conditions exist for sustainability of the activities implemented under Phase I (ASSA) and Phase n (PSUR). Have CARE and its partners provided adequate attention to sustainability in each of the 3 Program components?
- ▶ Distill "lessons learned" which may be useful for the next years of implementation of the Southern Border Program and other future interventions of USAID/Ecuador.
- ▶ Is the approach of the three components adequate to improve Social and Economic conditions of the population in the Southern Border? What is the "value added" that the activities have contributed to improve the standard of living of the beneficiaries?
- ▶ To what extent should USAID be looking into providing assistance to help the border population look for alternative income sources, other than contraband (smuggling of goods, drugs, precursor chemicals).
- ▶ As appropriate, validate the sustainability of the activities especially under the Access to Social Services component.
- ▶ Is this Program fulfilling the cross border objectives (Peru-Ecuador) of the place plan and the US government pledge?

B. Monitoring and Evaluation:

- ▶ Has USAID provided adequate project oversight? To what extent has the USAID/Ecuador Mission been involved in project planning, management and monitoring?
- ▶ Has CARE provided adequate project oversight and performance monitoring?
- ▶ Have the Project's monitoring and evaluation plan and performance indicators been appropriate to measure ASSA and PSUR's planned results and their contribution to USAID/Ecuador's spa 11?
- ▶ Validate achieved results reported by CARE and its partners for USAID/Ecuador's Performance Monitoring Plan (PMP).

C. ASSA and PSUR Program Components:

The contractor will evaluate the accomplishments and impact of proposed activities and expected results/outputs under phase one and two, for each component. Questions to guide the evaluation may include but are not limited to:

Phase I, ASSA:

- ▶ Validate the actual technical and organizational status of the selected municipalities in water, health and sanitation.
- ▶ Validate the construction of the selected potable water systems and how they are benefiting the people. How are the water boards pertaining and to what extent are they assuring self-sustainability of the systems.
- ▶ How are the women participating in the water boards and other activities in the Municipalities?
- ▶ Is there a positive impact on the behavior of the children, women and community members in relation to water, health and sanitation?
- ▶ How is the quality of the construction of the systems themselves and how adequate are the size of the systems compared to the population to be served.

Phase II, PSUR:

Access to Social Services Component:

- ▶ In selected potable water systems, verify the number of beneficiaries and the direct benefits to the population served.
- ▶ Quality of the systems and population served.
- ▶ Are the water boards organized (% of women) and capable of achieving self-sustainability of the systems?
- ▶ Is there a decrease in illness, especially in children, as a consequence of consuming potable water?
- ▶ Cost/benefit of the projects. How effective is the ferro-cement technology applied in the construction of these systems.
- ▶ Validate the number of new/improved sanitation units and the number of beneficiaries. Are they used by the beneficiaries? What is the cost/benefit of them?
- ▶ Validate the number of new/improved community garbage collection or recycling programs.
- ▶ Have the education activity effectively demonstrated that the knowledge and behavior of population are improved?
- ▶ Validate the counterpart contribution (CARE, communities, local organizations, others).
- ▶ Roll of the municipalities.

Natural Resources Management Component:

- ▶ Validate the Policy documents which strengthen the legal basis for conservation and development in the Cordillera del Kutucú and its area of influence, and its applicability. ie. Forestry Law, Biodiversity Law, etc., Environmental Assessment for forestry & aquatic productions.

- ▶ Validate the number of hectares of land in selected areas under NRM plans and the number of beneficiaries pre & post PSUR intervention.
- ▶ Validate the number of hectares under legal title in/or near the buffer zones and the number of beneficiaries pre & post PSUR intervention.
- ▶ Are NRM encouraging NRM practices in Place/Implemented?
- ▶ Is the cost of titling reasonable? Cost/Benefit.
- ▶ Is the NRM approach appropriate?
- ▶ Have the strengthened local institutions become capable of designing, implementing and managing natural resources programs on their own? Will they become sustainable, thanks to PSUR's support? What about follow-up monitoring done by local technicians?
- ▶ Assess the activities implemented by NGOs, indigenous federations, and community organizations under PSUR's guidance. More specifically, compared to indicators.
- ▶ Examine the degree to which the partner institutions have succeeded in fostering a mutually beneficial relationship among the NGOs, community groups and with GOE entities, especially the Ministry of Environment officials.
- ▶ Is PSUR playing an important role in promoting consensus on important policy issues, e.g., served as a catalyst to bring together Ecuadorian organizations to address priority problems? Is there a tangible change on behavior that demonstrates this?
- ▶ Have community members been trained in forest management and agroforestry, and are they applying this training effectively?
- ▶ Is CARE developing effective and sustainable alternative income-generating activities? Is the approach of the alternative Income Generation appropriate, is it well structured (studies, analysis, markets as needed)? How effective is the Management. Are they sustainable?
- ▶ Are the income-generating activities (including ecotourism) contributing measurably or importantly to relieving pressures on protected areas?
- ▶ Are the mitigation methods employed effective in reducing environmental impacts of ground-disturbing projects? Why and/or why not? Where is this documented?
- ▶ In general, is PSUR utilizing previously proven best practices to mitigate impacts of activities? Are the results of these practices documented so that future activities can be planned using these or altered practices to be more site specific?

Local Government Strengthening Component:

- ▶ Is the approach used the correct one to strengthen Local Governments and reach the component's objective and program's objectives?
- ▶ In selected local governments, validate that they have adequate consultative processes in operation (based on the cantonal development matrix) and the benefits of this for the local governments and the population.
- ▶ In selected local governments, validate the number that have improved service delivery management (based on the matrix) and the benefit for the local governments and the populations.
- ▶ Sustainability of effort, as appropriate.
Ability of local governments to develop cantonal plans.

4. **Evaluation Team:** The Evaluation team will be composed of three senior experts, one should have a broad knowledge and experience in Social Services; one will be an expert in Environment Management; one will be a Local Government Strengthening expert. If necessary, CARE will provide a staffer to work with the team, to facilitate access to

information, field sites and key local contacts. The team is encouraged to make use of this resource as it sees fit, to the extent that it believes this support will enhance the production of a solid and objective evaluation.

Based on interviews, work plans, progress reports and field visits, the contractor should assess how this program has been implemented, if planned results were met and lessons learned for future similar activities.

Specific requirements of the team are as follows:

- ▶ Team members should be familiar with the concepts of regional development programs, especially as these have been applied in the LAC region.
 - ▶ Each team member should have at least 10 years experience in project development, implementation, evaluation, and strategic planning, preferably in Latin America.
 - ▶ At a minimum, the Team Leader must have participated in previous USAID evaluations of development programs and be familiar with USAID regulations and procedures regarding evaluations.
 - ▶ At least one team member must have a graduate degree in Natural Resources Management, Social Services, Local Government Strengthening or related field, or 20 years of relevant experience.
 - ▶ Team members must have exceptional organizational, analytical, and writing skills.
 - ▶ Each team member is responsible for production of the evaluation report, with specific responsibilities to be assigned by the Team Leader.
 - ▶ Team members must have recognized strong interpersonal skills, sufficient to smoothly relate to a wide variety of counterparts at all levels.
 - ▶ Team members must be fluent in the Spanish language.
 - ▶ The Team Leader has final responsibility for delivery of the final report.
 - ▶ Team members must have the ability to independently travel to
 - ▶ remote areas.
 - ▶ Team members must be independent and have no relation (in the last 8 years) with the project and/or the implementing institutions.
5. **Period of Services:** The evaluation is to commence o/a March 31,2003, for a period of approximately 18 working days, terminating o/a April 19, 2003. The evaluation team is authorized to work a six-day work week. The Team Leader is authorized to work an additional 3 working days to put the evaluation report into final form.
6. **Logistic Support:** The contractor will be responsible for all logistical support and arrangements for the implementation of this contract.
7. **Deliverables and Reporting Requirements:** The report structure will include an executive summary, body of the report and relevant annexes. Both the draft and final versions shall be provided in both hard copy and electronic formats (Microsoft Word 97, on 3.5 inch diskette). The contractor will send a copy of the final report and papers to PPC/CDIE/DI in Washington.

The executive summary will include the development objectives of the ASSA and PSUR programs, purpose of evaluation, findings, conclusions and recommendations.

The body of the report should include: 1) the purpose of the evaluation; 2) description of the ASSA/PSUR structure; 3) team composition and study methods; 4) observations and comments supported by findings; 5) conclusions, related recommendations and lessons learned stated as actions to be considered for the future of this Special Objectives.

The report should not exceed fifty pages (including annexes) and should be submitted in English. However, the Executive Summary (which should not exceed five pages) and Recommendations should be submitted in both English and Spanish. Annexes should include a copy of the scope of work for the evaluation and a list of documents and individuals consulted. Ten copies of the final report will be submitted to USAID/Ecuador.

During the first 2 to 3 days the contractor will submit a work plan with a detailed description of how the task will be carried out and a timeline, which will be subject to Mission approval.

After two weeks of work, the contractor will meet with the Mission team to discuss the status of the design process, findings, issues, problems, constraints to the progress of work and proposed alternative solutions.

The team will give a final exit briefing to USAID/Ecuador, CARE and the NGOs partners before departing Ecuador.

ANNEX B

INDIVIDUALS INTERVIEWED

1. Mr. Edgar Guillen, USAID PSUR Project Manager
2. Mr. Rick Garland USAID EG/D, Office Director
3. Mr. Luis Alvarado, SO 11, USAID Controllers Office.
4. Mr. Hernan Granja, SO 11 USAID Contracting Specialist
5. Ms. Jill Kelly, SO11, Environment Officer
6. Ms. Paulina Martínez, SO11 Program Development Specialist
7. Ms. Karina Duran, EG/D Admin Assistant.
8. Mr. Damian Villacrés, CARE
9. Mr. Fernando Solís, CARE PSUR Project Manager
10. Mr. Daniel Selener CARE, Monitoring and Evaluation Coordinator
11. Mr. Peter Buijs, CARE Country Director
12. Fernando Martinez, CARE PSUR Local Government Coordinator
13. Ms. Mercedes Duchicela, Manager CARE/ Morona Santiago and Coordinator for Natural Resources
14. Mr. Pedro Carrasco, Manager CARE/Loja and Coordinator for Social Services
15. Mr. Lars Klassen, USAID Mission Director
16. Mr. Patricio Espinosa CARE/Loja
17. Mr. Amaro Socola, CARE/Loja
18. Mr. Mario Cueva, Vice Mayor Cariamanga (Calvas)
19. Mr. Arnoldo Cueva, Comité Desarrollo Cantonal (CDC) Calvas.
20. Lic. Camilo Murillo, CDC, Calvas
21. Dr. Rubén Cueva, CDC, Calvas
22. Mr. Dalton Valdivieso, Secretario del CDC Pindal
23. Ms. Soledad León, Fundación Espacios
24. Ms. Patricia Cano, Fundación Espacios.
25. Mr. Carlos Bustamante, Plan de Desarrollo Pindal.
26. Mr. Marlon García, Alcalde Zapotillo.
27. Mr. Luis Requena, Presidente Junta de Aguas, Tronco Quemado, Zapotillo.
28. Ms. Fidena Díaz, Tesorera Junta de Aguas, Tronco Quemado, Zapotillo.
29. Mr. Fernando Requena, Operador Sistema de Agua, Tronco Quemado.
30. Mr. José Paladines, Alcalde Arenillas, El Oro.
31. Dr. Luz Benavides, CDC Arenillas.
32. Ms. Ana Granda, CARE, Promotora Social, Arenillas
33. Ms. Yandri Videla, CDC Arenillas.
34. Ms. Rocio Chalen, CDC Arenillas.
35. Mr. Froilan Reyes, CDC Arenillas.
36. Mr. Alberto Salcedo, Consejo Provincial de Loja.
37. Ms Nora Encalada, Fundación Espacios, Loja
38. Ms. Doris Duque, Director Fundación Espacios.
39. Mr. Francisco Merchan, Plan Internacional
40. Mr. Raúl Auquilla, Prefecto Provincial, Loja.
41. Mr. Eric van Weert, Servicio de Cooperación Holandés (SNV)
42. Mr. Manuel Bustamante. SNV

43. Mr. Raul Nieto, ARD Project 3D/ USAID
44. Mr. Alejandro Guidi, IOM/USAID Northern Border Project.
45. Mr. Francisco Viera, CARE/Macas
46. Ms. Ana González, SNV/Macas
47. Mr. Jaime Robles, CARE/Macas
48. Mr. Marco Chiu, ECOLEX
49. Ms. Vilma Gallardo, Presidenta Juntas Parroquiales, Morona Santiago
50. Mr. Braulio Rodríguez, Alcalde Sucúa
51. Mr Juan Penaranda, Residuos sólidos Sucúa.
52. Mr. Martín Cuela, Desarrollo Comunitario, Sucúa
53. Mr. José Cárdenas, Catastro Sucúa
54. Mr Santiago Zurita, CARE/Macas
55. Mr. Mauricio Sanin Comité Desarrollo Parroquial SHIMPIS (CDPS)
56. Ms. Rosa Once, CDPS
57. Mr. Felipe Foa, CDPS
58. Mr. Gonzalo Ponchera, CDPS
59. Mr. Pedro Chare, CDPS
60. Mr. Antonio Machet, CDPS
61. Mr. Moisés Molina, Alcalde Logroño.
62. Mr. Washington Vallejo, Alcalde Macas
63. Mr José Morillo, Coordinador Plan Bi-Nacional
64. Mr. Patricio Garcés, Plan Bi-Nacional
65. Mr Leonardo Viteri, Presidente Asociación Ecuatoriana de Municipalidades AME
66. Jorge Tsemp, President of the Junta de Agua, Uunt Suantz
67. Silvio Fanchim, village “syndicato”, Uunt Suantz
68. Francisco Tachen, the PSUR local technician, Uunt Suantz
69. Ernesto Wisum, the traditional village elder, Uunt Suantz
70. Tedeuco Piruch, teacher, Uunt Suantz
71. Carolina Wapu, Farmer, Uunt Suantz
72. Bosco Najandempt, President of the Federación Independiente del Pueblo Shuar (FIPSE)
73. Cristóbal Shacay, technical advisor to COWASH, Consejo de los Pueblos Guampi, Awacuma y Shuar
74. Mr. Gonzalo Mantín, President of FISCH
75. Ec. Diego Becena, Technical Advisor, FISCH
76. Mr. Mesias Chuin, Secretary, FISCH
77. Ms. Rosa Mashuma, Director of Women’s Associations, FISCH
78. Mr. Ruben Ubi, Comisario, FISCH
79. Mr. Rafael Ancuashi, Director of Communications, FISCH
80. Ivan Delgado Manchen, President of the Association of Livestock Morona Santiago
81. Franklin Rios, Logger
82. Norma Castillo, Ministry of Environment, Macas Technical Office
83. Padre Silvia, Salesian missionary
84. Sra. Maruja Nuanba, farmer
85. Mr. Vicente Antun, President of the Junta de Agua, Shuar Center Uquias
86. Bosco Zavalla, Businessman, lumber and livestock, Macas
87. Mr. Fausto Calle, Trucker
88. Martín Chirioy, President, Ipiakuim Shuar Center
89. Cristóbal Chiriap, Ipiakuim Shuar Center

90. Angel Chinkm, President of the Shuar Association Yaupi,
91. Pablo Saant, Teniente Político, Yaupi,
92. Jaime Kankais, Treasurer,
93. Melson Shipui, Associate Yaupi,
94. Jorge Waupakim, Vice Sindicato, Yaupi,
95. Ruben Chuipi, Vocal Yaupi,
96. Celletina Tinito, Associate Yaupi
97. Pablo Yampiz, Centro de Salud, Asociación Sevilla
98. Local Technicians from Asociación Sevilla and Méndez: Bety Cajamarca, Claudia Tsenkush, Ramón Timias, Tamon Piluch, Luis Entzakua, Rubén Slumpiukat, Juan Tarsicio Cluriap, Pascual Puandur, Francisco Yampik
99. Lea Scherl, Ex-director, CARE Unit for Integrated Development and Conservation
100. Henr Quiroz, Assistant for Monitoring and Evaluation, CARE
101. Kathy Apazmino Lemos, Coordinator for International Cooperation AME

ANNEX C

DOCUMENTS CONSULTED

1. USAID Request for Evaluation Proposal.
2. Mid Term Evaluation for PSUR: Scope of work.
3. Development Associates, PSUR Proposal.
4. Field Visit Report by LAC Kevin McGlothlin 1/24/03.
5. Field Report by Edgar Guillen to GDO Director. 6/19/01
6. Cooperative Agreement with CARE for PSUR Implementation. 10/30/00
7. Cooperative Agreement with CARE for ASSA Implementation. 7/20/99.
9. Convenio CARE/Cantón Catamayo, CARE/GTZ para sistema de agua potable.
10. Democracy Program of USAID/Ecuador. 2002
11. Profile of Ecuador.
12. CARE Project Proposal for PSUR.
13. Border Integration. Indicators and Logframe.
14. Land Fill Study for the Canton Arenillas, 2003
15. Informe Final ASSA Frontera, Marzo 2001
16. Revisión Financiera de CARE para 2000 y 2001. Deloitte & Touch, 2002
17. Actas de Entrega Proyecto de Agua Potable de Suanamaca, Unidades Sanitarias Suanamaca. Sistema de Agua Potable de Tronco quemado. Relleno Sanitario de Arenillas.
18. Ley y Reglamento de las Juntas Administradoras de Agua Potable para el Sector Rural.
19. Planes de Desarrollo Cantonal. Metodología preparada por CARE.
20. Manual del Operador de Sistemas de Agua Potable. Consejo Provincia de Loja.
21. Request for Application (RFA) for PSUR Project.
22. Ley Especial de Descentralización, Sept. 1997.
23. Leyes del Régimen Provincial y del Fondo de Desarrollo Provincial.
24. Final Evaluation, Ecuador Sustainable Use of Biological Resources Program, Phase III
25. Programmatic Assessment of the Program for the Sustainability and Regional Union (PSUR)
26. Evaluación Ambiental Al Proyecto Vial Makuma-Evenezer-Tiasha Versión 1
27. A tropical Forest Transition: Agricultural Change, Out-migration and Secondary Forests in the Ecuadorian Amazon
28. Evaluación Ambiental al Valle del Upano
29. Propuesta Jurídicas para la Administración y Manejo Territorial de la Cordillera del Kutucú
30. El Marco Guía para la Motosierra, Una Inversión Rentable or No
31. Plan de Manejo Integral del Centro Shuar Uunt-Suants
32. Informe de viaje a Macas, Edgar Guillén, 7/10/02
33. Convenio De Cooperación Interinstitucional Entre CARE Ecuador – Programa Sur, La Municipalidad de Catamayo y Juntas Parroquiales Rurales del Cantón Catamayo
34. Program Monitoring Plan PSUR

35. Verifying documents for samples of:
 - ▶ School Bathrooms — six sites
 - ▶ Local government indicators one and two
 - ▶ Natural Resources indicators one and two
 - ▶ Water systems
 - ▶ Bathrooms
36. Informe Programa Sur Periodo: Abril – Septiembre, 2002 Año Fiscal USAID 2002
37. MARCO LÓGICO Programa Sur
38. Towards better programming, A WATER HANDBOOK, Water, Environment, and Sanitation Technical Guideline Series – No. 2 UNICEF
39. Key Factors for Sustainable Cost Recovery, in the Context of Community – Managed Water Supply, IRC Occasional Paper Series OP 32 E
40. Análisis de la Situación Comunitaria, Sistema Regional de Tronco Quemado, Zapotillo – Loja – Ecuador Julio 2001
41. Reportes de prensa de la emergencia sanitaria sufrida por el Cantón Catamayo, provincia de Loja
42. Diagnostico de Agua y Saneamiento, Comunidad de Suanamaca, Cantón Calvas, provincia de Loja
43. DiseZo, Construcción, Operación, and Cierre de Rellenos Sanitarios Municipales, Manejo Integral de Desechos Sólidos, Clasificación, y Reciclaje
44. Borrador de la Guía Metodológica “Manejo Concertado de Vertientes en la Provincia de Loja
45. Reporte de contraparte enviada por el H. Consejo Provincial de Loja
46. Consolidado de aportes comunitarios en mano de obra no calificada

ANNEX D

SITE VISIT REPORTS

THE FOLLOWING ARE FINDINGS FROM INDIVIDUAL SITE VISITS:

A. SOCIAL SERVICES SITE VISITS

The Team visited four potable water systems and one bathroom program.

Suanamaca, Loja: Water System, Home Bathrooms, and School Bathroom

The community of Suanamaca received a rehabilitated water system under ASSA in 2001 as well as home and school bathrooms under PSUR in 2002. The rehabilitation included upgrading the catchment facility, treatment plant and chlorination room as well as providing new pressure limiting tanks, transmission line, distribution network and household connections.

Approach: Appears to be a well constructed, relatively low-cost gravity fed water system. The PVC pipes are underground to prevent deterioration and it has a drip chlorination system. Capacity appears to be fine. The detached bathrooms are very appealing, with some of the families taking the simple unit and adding tiles and fixtures to make it look like a bathroom you would find in an urban area. The school bathroom is an attractive, large structure with steel beams and corrugated roof, four toilets, urinals for the boys, and washbasins. There are separate rooms for boys and girls in the one structure. There is evidence of basic hygiene education at site of the school and on the door of each bathroom. PSUR has established a functioning Water Board that has hired an employee to operate and maintain the system and the board has good records on water usage and payments of fees.

Sustainability: There should not be any major issues with respect to the operation and maintenance of the home and school bathrooms. Repairs, such as new paint, fixing or replacing faucets and toilet flappers, should not be beyond the financial and technical capacity of the community to fix. The water system is more complicated and will be more expensive to fix when major repairs are needed. The two most important elements to assuring the continued operation and repair of the system have received a lot of attention by CARE: the Water Board and the Sanitation unit of the municipality. While these are good strategies, the financial strength of the Water Board has been slowly eroding over time as costs have increased and fees have remained relatively constant. While the Water Board has \$500 in savings, its current fee of \$0.60 per 15 cubic meters per month only just covers the cost of its employee and the salt that is used to produce chlorine. The Water Board is no longer saving any money.

Impact: The impact on the health of the community has been large according to the Water Board, a beneficiary, and the schoolteacher. Fewer kids die from diarrhea or miss school. The bathrooms are so attractive that they are likely to be used. In many cases they have been built right next to latrines.

Gender: There has been a reduction in the amount of time dedicated to retrieving water, estimated to be three hours per day per household, especially among women. The Water Board treasurer is a woman.

Cost: The total direct cost of the three components of the program, taken from the Actas de Entrega, is over \$93,000, including contributions from CARE, OPS, the provincial council, and the community. This works out to be about \$776 per family and \$176 per beneficiary. The cost of the school bathroom is \$12,325, benefiting some 43 students.

Indicator Check: The number of beneficiaries reported in different documents was not consistent. The number of beneficiaries in the CARE system for bathrooms is 530 plus 43 for the school bathroom. The number in the verifying document is 555 for bathrooms plus 43 for the school bathroom. The number in the system for the water system is 834. The number in the verifying document, the Acta de Entrega, is 650. The Team believes that a slight revision in the methodology of reporting the numbers will result in greater accuracy, with little additional work.

Issues Identified:

1. Water fees are not keeping up with rising costs.
2. The cost of the school bathroom is high.
3. The beneficiary count could be more accurate and consistent.

Tronco Quemado, Loja: Water System and School Bathroom

Tronco Quemado received a new water system and school bathroom in FY 2002 under PSUR. The water system is regional, covering five communities. A household bathroom program is being considered for FY 2003.

Approach: This is a well water system that involves a submersible pump, and pumping station, a water treatment plant and holding tank, transmission lines to the five villages, distribution networks within each village and household connections. This type of system is more expensive than the more simple gravity type of Suanamaca, but the design was dictated by the topography. The school bathroom is of the same design as discussed above. Due to a lack of a transformer at the treatment plant, chlorine is made at the pumping station and brought to the treatment plant where it is poured into the water tank. This system of producing chlorine and adding it to the water should be reviewed. An electrical line runs right past the treatment plan and could provide electricity for making chlorine and running a drip system.

Sustainability: This type of water system is also more complex to operate and more expensive to maintain. The Water Board has hired two operators who have been trained by CARE. Over the initial year and a half of the life of the system, the only problems have been caused by breaks in pipes. The operators have easily repaired these breaks. The Water Board's financial books seem to be in order and community members are paying on time. Operating costs are running about \$153 per month. Income is currently \$170 per month, with water fees running \$2 per 6 cubic meters. There are 85 families that are active members. While this fee of \$2 per month is fairly high for the community, it is not sufficient to generate significant savings. The treasurer reports a

balance of about \$378. Any future problem with the pump will likely result in a cost that is beyond the capacity of the Water Board to pay. The school bathroom should be easy to maintain.

Impact: According to members of the Water Board, the project was a dream come true and the impact on the health of the community considerable. They formerly used water from a nearby contaminated river.

Gender: About half of the Water Board members are women representing various communities; the treasurer is a women.

Cost: The total direct cost of the water system taken from the Acta de Entrega was \$80,489. For the water system, CARE provided some \$45,402, the provincial council provided some \$16,345, the municipality provided \$4,850 and the community \$13,892. The cost per family is \$947 and the cost per beneficiary is \$146.

Indicator Check: The number of beneficiaries in the Acta of Entrega is 552, the number in the CARE data system is 450.

Issues Identified:

1. Water fees are not generating a level of savings that will be adequate to address future system problems.
2. The beneficiary count could be more accurate.

Santa Rosa, Morona-Santiago: Water System

The community of Santa Rosa is building a new water system under PSUR. It will be a good candidate for inclusion as a completed project in FY 2003. The project includes a catchment facility, transmission line, treatment plant, two storage tanks, transmission lines to five communities, distribution networks and household connections. Everything is completed except the distribution networks, household connections, water laboratory, and chlorine production and drip systems.

Approach: Appears to be a well-constructed, relatively low-cost gravity fed water system. Ferro cement technology is being used for the two storage tanks, one of 50,000 liters and one of 15,000 liters for a comm. The one fast and two slow filters and chlorination systems appear to be well thought through. The community is trying to buy two hectares of land around the water source to be able to protect the catchment site. It hopes to work with the PSUR natural resources component in the future to protect the watershed.

Sustainability: From both technical and organizational standpoints the project looks like it will be sustainable. Two operators have been trained to operate and maintain the system. The Water Board is getting organized and has already set a base fee of \$2 per 15 cubic meters of water. Financially, if the Board is able to collect the fee as set and the input costs are close to their estimates, the Board should be saving over \$40 per month, sufficient to cover operating costs and repairs.

Impact: The impact on health should be significant, especially during the dry season. In the past the communities relied on rain for their water and during the dry season, they had very little water.

Gender: There are two women on the Water Board, one of which is its secretary.

Cost: The total direct cost of the water system is estimated to be around \$134,000. CARE is providing \$66,000, the Municipality is providing \$37,000 for the community distribution networks, and the community is providing \$31,000, mostly in the form of labor. The cost per participating family is \$1030. The cost per beneficiary is around \$166. These figures are likely to go down as more people decide to participate after they see that the system is working. So far only 130 out of a potential 200 families have signed up.

Indicator Check: Not possible as system is not completed.

Issues: None at this time.

San Luis Ininkis, Morona-Santiago: Water System

PSUR helped this community renovate its water system in FY 2002. The renovation included the provision of new water pipes, valves, meters, tools and a chlorination system. It also included training for the operators and the Water Board as well as health education.

Approach: While the approach allowed a low cost renovation of an existing system, it may have missed an opportunity to address the needs of additional groups of families who live close by, who were not part of the original system.

Sustainability: This system appears to be in crisis from several angles. People are still fighting about the type of system built, the number of people to be benefited, and the fees to be assessed. While the system was delivered in September of 2002, the Water Board did not begin collecting fees until March 2003. In both April and May, only 20 of the 67 families connected to the system paid their fees. Some families are using water at very high levels, 60 to 80 cubic meters per month.

Impact: Considering that that the community had a water system previously, the water source may not provide water during the dry season, and the unwillingness to pay fees, the likelihood of a large impact on health is small.

Gender: Given all the other issues, we didn't focus on the impact on women's roles and participation in the Water Board.

Cost: The overall cost of the rehabilitation was a relatively low \$27,610. CARE provided \$20,000 and the community the rest in labor and cash towards water meters. The cost per family installed is \$410. The cost per beneficiary is about \$90.

Indicator Check: The number of beneficiaries in the CARE data bank is 2850. The number in the Acta de Entrega is 318.

Issues:

1. The system is in crisis and will need continuous attention for a while to put back on track.
2. Any possible future assistance to expand the system should be dependent on resolving current issues first.

Other Related Site Visits

The team also visited the Provincial Unit of Studies and Designs of the Loja Provincial Government. This unit was established in June of 2000 with the idea of combining and coordinating the efforts of the province, CARE, Plan Ecuador, the municipalities and communities to build or rehabilitate water systems. The unit also in involved in waste disposal and sanitation projects. CARE was the prime promoter of the establishment of the unit.

The basic idea has been to standardize design criteria, for example that water systems should be designed for twenty years of service, to pool the costs of completing water studies, and ensure that studies are carried out for projects that have an assured source of funding.

B. SITE VISITS: NATURAL RESOURCES MANAGEMENT

Field Observations and Interviews

Thursday, June 12

The forester on the evaluation team spent a total of 7 days in Morona Santiago, arriving by airplane on the afternoon of Thursday, June 5 and leaving by airplane on the afternoon of Thursday June 12. The following paragraphs summarize the results of his interviews and observations separately. The forester's observations are in the text while the comments of the interviewees are numbered.

Thursday, June 12. The forester attended a three-hour meeting with the PSUR Integrated Conservation Development Committee (CDI). The CDI includes representatives of each of PSUR's consortium members in Morono Santiago. These institutions include CARE itself, Jatun Sacha, Ecociencia, and ECOLEX, and SNV. SNV was not present at the meeting. In their meetings the CDI members try to reach consensus on PSUR's priorities and actions. During this meeting, however, each representative the consortium members presented, assisted by Power Point slides, their activities under PSUR. This meeting thus provided the mid-term evaluation team member with a rapid overview of PSUR's activities in Morono Santiago. At the meeting, he requested the members of the CDI to provide him with their own short evaluations of the strategic, tactical and management strengths and weaknesses of the natural resource component of the PSUR. The CDI members worked in teams to prepare these evaluations. The team member incorporated these evaluations into his section of the Mid-Term Evaluation.

Friday, June 16

A field trip down the Upano Valley and out the road that leads to San Jose de Morono, skirting the southern end of the Cordillera Kutucú, and then a visit to Mendez, occupied the entire day. The trip included the following visits to PSUR field activities.

Logging Operation. Near the village of San Simon, on the road to San Jose de Morono, an inspection was made of a privately owned forest area for which Jatun Sacha had prepared a Simplified Logging Plan (“Plan Simplificado de Aprovechamiento”). The forest owner was extremely sick at the time of the visit so he could not accompany the group to the logging site or provide his perspective on the preparation of the logging plan.

The preparation of the logging plan had involved the following steps. The forest owner identified the trees he wanted to cut. Of 14 trees, 12 were one species, “chuncho” and 2 were another unidentified species. Then the local forestry technicians marked and measured the diameter of these trees and located them with a GPS. Next the technicians took points with a GSP on a perimeter, determined by ridgelines, around the marked trees. The forest owner himself felled and sawed up the trees with a chainsaw. The boards were still in the woods at the time of the visit. The forest owner planned to haul them out of the woods utilizing horses and sell the boards at the roadside to an intermediary.

Jatun Sacha has established four 1 ha. monitoring plots within this forest. Within the sample 1 ha plot, the technicians had measured all trees above 10 cm in diameter at breast height. They had measured regeneration on smaller plots within the 1 ha. After felling of the trees they had measured the damage to the residual trees and regeneration. By making measurements in subsequent years, Jatun Sacha plans to obtain data on the impact of this type of logging on the forest.

1. The local technicians gave a clear explanation of the process for preparing the logging plan, indicating that they had been well trained.
2. The procedures followed for the preparation of the logging plan comply with the Ministry of Environment’s requirements.
3. Although logging damage to the residual stand was minimal, there was no indication that the logging procedures had led to reduced negative impacts on biodiversity, soils, or water, or had reduced logging costs or improved product quality compared to standard logging practices.
4. The monitoring plots comply with the requirements of PSUR’s Programmatic Environmental Assessment. Four 1 ha. plots in one forest, however, appears excessive for a logging operation that involved only 14 trees.

Shuar Center Ipiakuim. Ipiakuim is one of the Shuar Centers in the Shuar Association Mendez that has participated in PSUR. The group met with Martin Chirioy and Cristobal Chiriap, members of the Ipiakuim Shuar Center, which has received support from PSUR for wood, fish, chicken, and snail production.

1. PSUR has assisted only 5 of 21 Shuar Centers in the Mendez. The other Shuar Centers in the association also need assistance.
2. Ipiakuim has a total of 2,700 ha. of forest of which perhaps 300 or 400 could be logged. The Shuar Association Mendez has 41,000 ha of forestland in total. Individuals make timber sales, not the Shuar Centers.
3. PSUR has trained 4 forestry technicians. More technicians and training are required, since only 2 of the 4 trained technicians still are involved in PSUR.
4. The price of wood is very low and the costs of inputs to its production, such as gasoline, oil, and chainsaws has risen.

5. The Ministry of Environment levies fees that must be paid before logging or receiving payment for wood. To make such payments ahead of time is beyond the financial possibility of most Shuar. Therefore a rotating fund was established in the amount of US\$1000 at 17 percent interest with a 60 day repayment schedule.
6. Among the Shuar wood sales have traditionally financed emergencies, such as sickness in a family, or special communal needs, such as special celebrations or school construction. The Ministry of Environment's forestry regulations clash directly with these traditional uses for the proceeds of wood sales.
7. PSUR assistance should continue until the Shuar Centers can maintain the activities without assistance. The Association Mendez has had a number of experiences with assistance programs that last a short time and lead to no permanent beneficial results. PSUR should not be another such experience.

Shuar Center Nunmantai (Nungande). Nunmantai is located on the Patuca/Santiago road. Here PSUR has provided technical assistance and a small rotating credit fund.

1. The new varieties of chickens were growing faster than the normal variety. They were surviving and being eaten or sold. They are fed purchased feed, however, rather than locally grown corn, which may make their production more expensive.
2. Snails are a food that the Shuar already know since they have traditionally eaten wild snails. The snails grow very well and have few production problems.
3. Timing of production has been a problem, since markets require a reliable, steady flow of the product. PSUR is gradually training the producers to plan for a constant harvest.

Shuar Association Mendez Fish Farm. The Shuar Association Mendez has a fish farm project on the outskirts of Mendez. The EEC and the World Bank, through PRODEPINE, have both previously financed the fish farm in the last 2 years. The fish farm is not yet in production. Although two buildings and about 10 rectangular ponds have been constructed, only two of the ponds have been stocked. PSUR recently has financed the installation of a water system to fill these ponds and provide running water to the buildings. Time did not permit a thorough analysis of this operation. cursory observations and a conversation with the administrator, however, gave the impression that this fish farm suffers from the typical weaknesses of a communal operation financed by external, donated funds. The administrator is very young and inexperienced in either administration or fish production. He did not provide projections about production per unit area or time, potential markets, sales or profit projections or operational costs. Furthermore, he complained that members of the Mendez Association were unwilling to donate their time to cut the grass and clean the fishponds. In short, this operation may lack the entrepreneurial drive, business skills and technical expertise that tend to make businesses successful.

Saturday and Sunday, June 14 and 15

On both these days rainy weather forced the cancellation of the planned airplane flight to Shuar Centers in the Trans Kutucú. Interviews, summarized in the following paragraphs, replaced the flight.

Mr. Fausto Calle. Mr. Calle is in the Transportation business. Among other products he transports wood.

1. Since 2001 the exchange rate has shifted in favor of Peru. Two years ago he transported wood to Huaquillas in Perú. Cuenca furniture manufacturers were complaining that they could not obtain sufficient wood from Morona Santiago. Now Peru, and other countries, are selling wood to furniture factories in Cuenca.
2. Besides a lower price, imported wood has better quality. Pine from Chile, for example, is an “elegant” wood that comes in standard dimensions and is kiln dried.
3. Ecuador’s last large reserve of primary forest occurs in Morono Santiago. Once the roads into the province are improved, and the bridge between Macas and Puyo is been repaired, it is likely that the large timber industry, such as Arbooriente in Puyo, will move into the province to buy wood from land owners, as they have done elsewhere in Ecuador.
4. The Ministry of Environment’s controls on wood movements along the roads can be easily be circumvented. For example, required documentation (“guias”) can be purchased or trucks can pass checkpoints at night when they are unoccupied.
5. His truck can Transport 400 boards (“tabla”: 24 cm X 1.25 cm. X 3 m) at a time to Cuenca. He receives US\$3.50 per board if payment is in 3 months and US\$3.20 if payment is immediate for “copal” boards. His costs are about US\$3.00 per board so he makes a net profit of about US\$0.50.

Bosco Zavalla. Mr. Zavalla is in the sawmill and livestock businesses. He owns 3 farms in the Upano Valley.

1. His pastures were already formed when he bought the farms so he does not create new pasture at the expense of the forest cover but concentrates on improving existing pasture. He can increase the productivity of pastures by roughly 3 times through improving the soil and planting better pasture varieties. He improves soil through planting “guabo”. The trees also provide shade for cattle, which is very important for their productivity and health.
2. Cattle production is suffering a crisis. The costs of meat production are much higher in Ecuador than in Argentina. Ecuador meat has become uncompetative even in Ecuador. He is shifting to milk rather than meat production because there is a local market for milk.
3. He only buys wood at the roadside Costs of production in the forest exceed the income. The Shuar do not count their own time, since they do not have alternative work. They can fell trees, cut up logs into boards and haul the boards to the roadside at a cheaper cost than he can. He has calculates that the cost of production of 100 boards placed at the roadside is US\$95. The Shuar, however, are selling 100 boards at the roadside for US\$80.

Shuar Association Cutchaentza. The Shuar Association Cutchaentza is a member of FIPSE. It is located close to the point where the road to Taisha presently ends. We talked to some of the Center’s leaders. Their deep distrust of outsiders became immediately evident since they rather sharply questioned our motives for inquiring about the road to Taisha.

1. About 30 years ago the national government required the Shuar Association Cutchaentza to clear forest in order to retain land ownership.
2. The National Development Bank (BNF) gave credit for cattle production but began to charge interest and capital after 2 years, before it was possible to sell the cattle. As a

result, many of the Shuar could not repay the loans and the government sold off their land and cattle at auction in order to repay partially their debt.

3. The Ministry of Environment imposed the new forestry regulations and fees on wood production without consultation with all of the NGOs.. The association members do not feel any obligation to follow these regulations or pay these fees since they believe that the wood in its forests, and the potential cash income from that wood, belongs to its members not to the Ministry of Environment.

Monday, June 9

Uquias (Sacrada Corazón). PSUR financed a potable water system in Shuar Center Uquias, a member of the Shuar Association Sevilla.

1. The system was completed 3 months ago. It serves 50 families but 2 have dropped out of the system. Formerly Uquias residents obtained water from hand pumps. The water was contaminated. The community provided the labor for construction of the water project.
2. Monthly payment for the water starts for everybody at US\$0.50. Additional payment may be required depending on the quantity of water consumption. All the members of the water system have meters. Since PSUR donated 3 months of chlorine there has as yet been no need to buy anything. It is unclear whether the system is charging enough to pay the maintenance costs.
3. The system was operating and the water was being chlorinated. There are two operators who appeared to know how to mix the chlorine.
4. According to the President of the Junta de Agua, Mr. Vicente Antun, the water tank had already been constructed previous to PSUR's involvement. Unfortunately he thinks, PSUR did not finance an enlargement of the water tank. Mr. Antun believes that in the dry season, the source of water may dry up and that the tank will not store enough water so the system may run dry. According to PSUR staff, however, the tank is sufficiently large and based on measurements of water flow.
5. The main problem in completing this system was that the Shuar Center where the water is obtained does not receive water from the system. Therefore, the owner of the land where the intake is located had to be compensated through the construction of a cement structure for doing laundry.
6. Water to the community's school has been cut off for lack of payment and because the children left the faucets open, wasting water. The director of the school, Mr. Vernave Wampash, however, disclaimed any knowledge of why the water had been cut off. Antonio Marian, who is the coordinator of the school, is also secretary of the Junta de Agua.
7. The President of the Junta de Aguas thinks believes that the Junta de Aguas needs a storage and meeting building. He requested that PSUR pay for this building.

PSUR also has promoted agricultural activities in Uquias. These consist of the organization of a Production Committee and assistance to the high school for the installation of a medicinal herb and vegetable garden.

1. The school specializes in training Shuar children from the Trans Kutucú to be teachers. Its curriculum provides for only 1 hour per week in agriculture. PSUR justifies the establishment of a garden in a school where the students are not studying agriculture by

- noting that the Shuar students return to their homes in the Trans Kutucú carrying samples of the plants in the garden with them.
2. Sra. Maruja Nuanba was very pleased with the ducks that she is raising thanks to the small revolving credit fund provided by PSUR. Her husband noted that eating duck quickly cures his hangovers.
 3. They are growing ginger in this community. The fish project did not succeed. The people would like to be loaned some money so they can purchase milk cows but they need technical advice in pasture establishment and management.

Meeting with Local Technicians (Técnicos Locales). The team member met for about 2 hours with the 9 local technicians working under PSUR in the Association Sevilla. Local CARE staff were not present. The group included 5 agroforestry technicians and four forest management technicians. Their main issues included the following:

1. The training that they received, although well focused on the production problems that they face, was far too short. PSUR compressed a training program that was designed to last 600 hours into 120 hours, in order to make up for the time that had been lost because of negotiations with the FISCH and the Associations. Consequently, the training reviewed only briefly material that would require more time to be learned well. The technicians feel that they need more training.
2. PSUR does not provide the technicians with Transportation. They rely on local buses to reach the communities where they are providing technical advice. Since the buses do not operate at regular hours, frequently the technicians waste time waiting for buses and have cannot keep appointments. PSUR evidently believed that the technicians would be working in their own Shuar Center, not in other centers, so that Transportation would not be a problem. In fact, the technicians do work in other Shuar Centers than their own. They therefore require their own means of transportation.
3. Compensation (“bonificación”) for the local technicians is very low, around US\$100 per month, not equal for all the technicians and irregularly disbursed. The agroforestry technicians, paid by Arco Iris, receive less compensation per month than the forestry technicians, paid by Jatun Sacha. The technicians say that they “are dying of hunger” with such a low monthly payments, especially since they have to advance travel and per diem costs out of their own pockets. The technicians are forced, therefore, to spend part of the week working on their own farms. The technicians say that one reason for the decline in the number of technicians from 15 to only 9 is the low level of compensation that they receive. Additionally, the technicians receive their payments in Macas. Frequently, when they arrive in Macas they have been told that their payments are not ready yet or that the computer system is not working and to come back the next day. Given the time involved in traveling by bus on roads in poor condition, this irregularity in payments makes the technicians lose a lot of time from their work.
4. The technicians cannot respond to all of the requests for assistance that they receive. PSUR, because of budget cuts, has instructed the technicians to not expand the number of associates with whom they work. The agroforestry technicians thus each work with only 6 or so associates, many fewer than they would be able to work with if additional funds

were available. For example, in the Association Seville, the technicians work with only 4 out of 25 Centers and in the Association Mendez only 5 out of 21.

5. The technicians perceive that the small size of the revolving credit fund limits their ability to apply their training. The credit fund has successfully stimulated community members to expand their production of chickens, fish, and snails, even though the maximum credit per person is only US\$80 and the annual interest rate is 17 percent. Due to its small size, however, the credit fund, however, is revolving within the same small group of associates, rather than expanding to new associates.

Padre Silvia. Padre Silvia is a Salesian missionary who has worked lived in Mendez for over 35 years and has worked closely with the Shuar.

1. The Shuar have a tendency to sell their rights to land to colonists in order to raise money for emergencies. It is therefore extremely important to provide communal land titles to the Shuar Centers as quickly as possible.
2. Wood prices are very low. The Shuar frequently do not comply with their contracts to provide wood to intermediaries.
3. The Shuar had many more cattle in the 1970's and early 1980's. They sold many of them in order to pay for their childrens' education. Many Shuar dream of having cattle again. Many Shuar now work on cattle ranches that belong to colonists.
4. Existing projects should be consolidated and made to work. Private investment should be attracted.
5. The Shuar are very conflictive. There are a lot of conflicts within the Shuar Centers over boundary lines. Internal registers of land divisions are would reduce the level of conflict over these internal boundaries.

Tuesday, June 11

Norma Castillo, Ministry of Environment, Macas Technical Office

1. PSUR has not provided support to the Ministry of Environment in Macas.
2. PSUR's legalization program has operated very well. People are happy with that part of PSUR.
3. Many logging plans are not being implemented.

Franklin Rios, Logger. Mr. Rios is a full/time logger who organizes logging operations on family parcels usually owned by Shuar. He hires cutters, horses and sometimes trucks sawn wood.

1. Legal cutting and movement of wood is very expense compared to illegal cutting and wood movement.
2. He estimates that only about 50 percent of a log in the forest is generally taken out to the roadside because it is only worthwhile to take the best quality boards out of the woods.
3. The poor quality of the roads raises wood production costs greatly.
4. Lack of funds limits his wood production greatly. Since he cannot find creit to finance his operations, he has to pay almost all his costs up front while he is often not paid immediately himself for his boards.

5. He prefers to only work with the species “copal”. Other species are too heavy and are difficult to move out of the woods. He cuts other species only by special order.

Ivan Delgado Manchen. Mr. Delgado is president of the Association of Livestock. He worked for many years in the Banco Nacional de Fomento as the Director of Credit and was responsible for running its program during the 1970’s and 1980’s to give credit for cattle in the Upano Valley and the Trans Kutucú.

1. Nobody knows what PSUR does because it has not been publicized at all. Local rumor says that PSUR promotes the cutting of wood in the Kutucú.
2. Communal land titles will destroy not protect the forest. With a title the Shuar will immediately exploit the wood since it costs them nothing. Land titling is the ideal instrument for destroying the forest.
3. The BNF gave short-term credit for fattening cattle. The Shuar get tired of cattle easily and sell off their animals. The BNF lost 3,000,000 sucres because none of the loans for cattle to the Shuar were paid back. Any credit should be given in kind not in cash.
4. The NGOs are creating a split between the colonists and the Shuar because they provide assistance only to the indigenous people.

Federación Interprovincial de Centros Shuar (FISCH). The meeting was with the Vice President of FISCH, Mr. Gonzalo Mantín. Also present were Ec. Diego Becena, Technical Advisor, Mr. Mesias Chuin, Secretary, Ms. Rosa Mashuma, Director of Women’s Associations, Mr. Ruben Ubi, Comisario, and Mr. Rafael Ancuashi, Director of Communications.

1. Land titling is the Shuar’s most urgent problem. PSUR has helped some but its titling program is a drop in the bucket. There is no other titling program for Shuar lands. PSUR has contracted out the titling process rather than working through and strengthening the capabilities of FISCH to carry out titling. Consequently, FISCH has learned nothing about ECOLEX’s new methodology for carrying out titling. FISCH should learn how to carry out titling itself, through its department of titling. Now the department lacks people, equipment and knowledge to carry out titling.
2. FISCH has prepared its own evaluation of PSUR. It evaluated PSUR as a very limited and inflexible project. To some extent PSUR tends to undercut the credibility of FISCH with its base constituency because PSUR can provide things that FISCH is incapable of providing.
3. Many Shuar would choose a cow over a land title. They often do not understand the importance of a land title. A lot more work needs to be done to educate the Shuar about the importance of having a land title. The Shuar tend to sell their land to colonists and thus break up the communal Shuar lands.
4. The Law of Territorial Circumscription is very important. The application of this law for the Shuar would permit them to establish the equivalent of a municipal government that could raise taxes and provide services. At present the existence of municipal governments sometimes causes conflicts with the Shuar Centers, especially where the population is partly Shuar and partly colonist or mestizo.
5. Integrated Management Plans should be given second priority compared to legalization of land titles. The Local Development Plans (LDPs) that PRODEPINE prepared did not reflect reality and have not been useful.

In Mendez people are satisfied with the work of PSUR. FISCH is anxious to finish the fish pond project there.

1. The Shuar are not in agreement with the forestry regulations, since they consider themselves the owners of the trees not the Ministry of Environment.
2. PSUR should coordinate much more closely with FISCH because FISCH represents the Shuar. It is the head of the Shuar but PSUR does not take it sufficiently into account.
3. PSUR has financed programs for Shuar women. It should provide more assistance.
4. PSUR is financing the electrical, water, telephone and administrative costs of FISCH.
5. Wood companies will soon pose a threat to the forests in Shuar lands.

Cristobal Shacay. Mr. Shacay is the technical advisor to COWASH. COWAS stands for the Consejo de los Pueblos Guampi, Awacuma y Shuar.

1. These three closely related indigenous groups were separated for 50 years because of Ecuador's conflict with Peru.. COWAS is preparing proposals for financing activities to promote reunification.
2. Mr. Shacay is also the founder of the Fundación Tsantsa. The purpose of the Fundación Tsantsa is to protect and manage the Cordillera Kutucú Public Protection Forest. Denmark financed the preparation of a preliminary management plan for the Cordillera Kutucú Protection Forest but the Ministry of Environment never approved the plan.
3. Mr. Shacay believes that the PSUR policy of working to obtain communal land titles for the Shuar Centers in the Cordillera Kutucú rather than working to establish an effective Public Protection Forest will result in forest destruction rather than forest conservation. The Shuar Centers are going to sell their wood as soon as they can to wood companies. He believes that once the Shuar have a title they will refuse any kind of control over their use of the land.
4. PSUR has not utilized Mr. Shacay's idea of the "Shuar Garden" which involves modifying the traditional Shuar form of cultivation to include a variety of commercial crops. Women are very important in the Shuar culture, especially as agriculturalists, even though men are very "machista".

Bosco Najandempt. Mr. Najandempt is the president of the Federación Independiente del Pueblo Shuar (FIPSE).

1. FISPSE wants above else to legalize the territories of its associations. It controls 800,000 ha and includes 69 Centers but has no land that has a legal title. It proposes to title associations rather than Centers because there is better organization at the level of the association.

Wednesday, June 12

The weather finally cleared on this day making it possible to fly to Trans Kutucú.

Uunt Suants. Uunt Suanzt is in the middle of the Cordillera Kutucú. It is located in a valley between two steep mountains. It has about 10 houses. PSUR has provided support to Uunt Suants for titling of its land, the preparation of an Integrated Management Plan, the installation of a water system, a fish pond and agricultural demonstrations. PSUR has a local technician living in Uunt Suants. The team member spent about 2 hours there. He spent a little over an hour looking at the cultivation of Carolina Wapu and about 40 minutes in a meeting with Center leaders. These leaders included Jorge Tsemp, President of the Junta de Agu, Silvio Fanchim, village “syndicato”, Francisco Tachen, the PSUR local technician, Ernesto Wisum, the traditional village elder, Tedeuco Piruch, teacher, and Adela Tanchim, an associate.

The following observations are a combination of those of the team member and of the members of the Uunt Suants Center.

1. The Shuar culture sharply differentiates the agricultural responsibilities of women from the hunting activities of men. Men only help in clearing forest for “chacras”. Yet the local technician is a young man, recently graduated from high school. He himself admitted that he did not know what to do. The disastrous results of the PSUR agricultural plot, where nothing was growing well must be due to this Center’s expert women agriculturists. Carolina Wapu’s grandmother and mother, for example, taught her how to grow yucca, camote, corn and other crops. She produces healthy, abundant crops both on the riverbank and on the steep mountain slopes. She knows when to clear a new chacra, how to burn a chacra, and which trees to leave standing. She has certain production problems, such as invasions of rats in her yucca plots. But PSUR has offered her nothing to improve her crop production.
2. The fishpond that had been financed by PSUR had recently been partially destroyed by a flood, causing the loss of half of the fingerlings. It was built by blocking the flow of a small stream. The fish were tilapia. Although they had been treated with chemicals to not permit them to reproduce this treatment, according to the technician is only 95 percent effective. Presumably, therefore, some tilapia capable of reproduction had escaped and could be reproducing. The fishpond did not look as if it had been professionally designed or constructed.
3. None of the leaders of this Center had read or know the contents of the Integrated Management Plan that PSUR had financed for Uunt Suants. This calls into question the usefulness of such plans.
4. Ernesto Wisum, the village elder, commented that in his opinion Uunt Suants has enough interesting things to see to attract tourists. The Integrated Management Plan, however, does not mention tourism as an optional land use.

Overflight Shuar Center Un Suants to Shuar Center Yaupi. This overflight indicated that the valley bottoms next the rivers have been partially cleared for pasture. Many trees, however, still stand in the pasture. The surrounding mountains rise sharply from the valley bottoms so there are easily differentiated topographic situations in Cordillera Kutucú, each of which would require different type of management. The mountain slopes appear far too steep and floristically diverse to permit commercial logging. If timber companies enter the center of the Cordillera

Kutucú their activities should be concentrated in the valley bottoms, preferably by harvesting trees grown in agroforestry systems, and kept off the mountain slopes.

Shuar Center Yaupi. Yaupi is located in a fairly wide, flat valley. There is a Salesian mission. The village is well organized and has a high school that specializes in social sciences. There is no instruction in agriculture or livestock. Yaupi is one village of 8 in the Shuar Association Yaupi. A group interview included Angel Chinkm, President of the Shuar Association Yaupi, Pablo Saant, Teniente Politico, Yaupi, Jaime Kankais, Tresurer, Melson Shipui, Associate Yaupi, Jorge Waupakim, Vice Sindicato, Yaupi, Ruben Chuipi, Vocal Yaupi, Celletina Tinito, Margarita Maisk, Margarita Waupakint, Andrea Kaniras, Cornelio Shauipi, and German Uyungara.

1. Yaupi asked CARE assistance for land titling because it was worried that the “company,” Burlington Resources, would take away its land. Yaupi has signed a Letter of Understanding with PSUR. PSUR staff have visited Yaupi 3 times and have helped Yaupi to prepare an Integrated Management Plan to “conserve our ecology”. PSUR is assisting 4 of the 8 Centers in the Shuar Association Yaupi to obtain land titles. The other 4 would also like to obtain land title. They did not have “persona juridical,” which is why they were not selected for titling.
2. Transportation from Yaupi to the Patuca to Santiago road takes 2 hours down river. It takes about 5 hours to come up river. A road is being built to Yaupi. The topographic study has been completed. The Provincial Prefecto has visited Yaupi in connection with this road. The Center has already discussed how it will handle the changes that the arrival of the road will bring. The leaders feel that they need more training in order to be able to conserve the forest once the road arrives.
3. Yaupi lies within the municipality of Logrozo. There has been some conflict between the municipal government and the Shuar Center. The mayor of Logrozo made or attempted to make an arrangement to sell “oxygen” for conservation. The Center Yaupi rejected this scheme because it had not been consulted. The leaders said that they would have accepted the project if they had been consulted previously. Such projects, they say, “must be born from us.” There is no conflict at present, however, between the Junta Parroquial and the Center Shuar since the same people serve in both types of government.
4. The leaders say that FIPSE is in favor of titling land by Associations rather than Centers and agree that it would be a much faster mechanism. FISCH has 434 Centers so it takes along time to title them all. The reason FISCH does titling by Centers is that some of the Centers do not have “persona jurídica” and therefore cannot receive a land title. PSUR provides the only possibility for achieving land titling. In the Upano Valley the Centers are obtaining individual land titles for their members. Here also every family has its own property even though the land is communally owned. Many families have 12 children so these family plots end up being much smaller in the next generation.

Overflight Yaupi to Patuka to Macas. Rather than fly straight northwest to Macas the plane goes south to the Patuka Santiago road, west to Patuka and then north to Macas, up the Upano Valley.

1. Forest covers large valley bottoms to the north of the Patuka Santiago road. These will be susceptible to rapid deforestation once they become more easily accessible by road. Since they are flat and more accessible they may be priority areas for establishing organized forest management and production.
2. The mountain slopes are extremely steep and susceptible to massive land slumps once cleared of vegetation. The closer to Patuka the higher the percentage of deforestation on these slopes, entirely for pasture. On the western side of the Cordillera Kutucú deforestation has occurred about 300 or 400 meters above the valley bottom.
3. The Patuka to Santiago road goes through very rough terrain but has caused and been affected by surprisingly few landslides.
4. The Upano Valley, although cleared almost entirely of its original vegetation, has a large number and volume of trees growing in pastures. A silvopastoreal production system could produce a very large volume of high quality, easily logged commercial wood.

C. SITE VISITS: LOCAL GOVERNMENT STRENGTHENING

Visit to the Loja/El Oro Provinces

Between June 4th and June 10th two of the Evaluation Team members traveled to the border provinces of Loja and el Oro in the southern part of the country. In this visit the Team met with local authorities of the Provinces, Cantones and Parishes as well as with Community groups in order to review the Program activities and results in the Municipal Strengthening Component as follows:

1. Cariamanga (Calvas)

CARE has been working in Cariamanga, the Cantonal Capital of Calvas, since 1999. According to the acting Mayor the results of the assistance have been very satisfactory. In Cariamanga CARE has worked in the 2 indicators as follows: Completion of integration of the “Comité Cantonal de Desarrollo”, Preparation of the Municipal (Cantonal) Development Plan, Municipal Information System and Training activities in leadership, Computers, Development plans methodology, and, municipal organization.

In this Municipality, the Team also met with the “Comité Cantonal de Desarrollo to discuss with the different sector working groups (Mesas Sectoriales) their expectations of the plan and when they see the plan can initiate implementation. According to the President of the Committee, they are in the process of negotiating with the Mayor the inclusion of the plan’s activities in the Municipal plan. The Team was under the impression that the Plan was designed outside the Municipality, with very little involvement of the local authorities.

Issues identified:

- a. The Municipal (Cantonal) Development Committee, even though a very well intentioned group of citizens are still negotiating the incorporation of its plan activities with the Mayor. The integration of this kind of community groups should be made between the

Municipal authorities and the Community. Strengthening the Community requires a parallel strengthening of the municipality in such a way that it has the capacity to respond to community demands.

- b. The Municipality does not generate the resources to pay for the municipal operating expenses. In this situation the Municipality has to resort to transfers to pay for 70 % of recurrent expenses.
- c. The sustainability of the proposed plan and other institutional reforms are very much dependant on future political authorities and the importance they attach to them.

2. Pindal

On the same day, the Team visited the Municipality of Pindal. This municipality has recently initiated to work with the PSUR Program. The Team held a discussion with the Acting Mayor and all the municipal executives during which the participants explained their role in the municipal administration and the development of a new municipal development plan.

In this case, the Municipality is taking the lead in the process of preparing a Municipal Development Plan with the participation of the civil society, integrated in a Development Plan Committee. Once the plan is completed, this committee is expecting to become a “Social Audit Committee”, in charge of following up and controlling the plan implementation.

The Municipality is installing, assisted by CARE, a Computer network and a Financial System that will allow the municipality to have a tax payers control and a municipal financial system that will integrate tax management, financial accounting and budget preparation and execution.

When asked for the financial situation of the municipality, the acting Mayor said that local revenues financed only 20% of the total expenses. The balance was financed out of the government transfers.

Issues identified:

- a. The Community is participating, with great expectations in the preparation of the Municipal Development Plan. They expressed their expectation that once the municipality approves the Plan, the municipality will initiate a development process. These expectations may not be satisfied by a municipality with minimal implementation and financial capacity.
- b. The computerized financial system has also created great expectation in the municipal staff. This kind of systems require significant technical expertise and financial resources for its operation and maintenance. Once CARE has completed the work, the municipality will have minimal capacity to run the system.
- c. The municipal financial situation is extremely worrisome. The lack of resources may be reflected in a high rotation of personnel.

3. Zapotillo

The Team visited the Municipality of Zapotillo but did not have the opportunity to meet with the municipal staff. However, in the way to the water Tronco Quemado Project, the Team had the

opportunity to exchange ideas with the Mayor. According to the Mayor, the most pressing municipal problem is the lack of resources for investment in infrastructure. He's very proud of an irrigation project being implemented with Japanese funding and believes that once the project's completed, the private sector will generate needed labor in the area. When asked how bad the municipal finances were, he told us that the municipal current income covered only 20% of the current expenditures. The balance was paid out of government transfers.

4. Arenillas

Arenillas is the biggest Canton (Municipality) in the El Oro Province, with the largest number of parishes and communities and with very little resources to implement the needed infrastructure and basic services. The municipality is installing a CARE sponsored automation network to manage the financial process and organize the tax payers accounts, accounting and budgeting. The Municipality is also implementing a Cadastre system that will allow the municipality to charge a property tax for urban and rural areas.

The municipality, with CARE assistance, is implementing a profiling system of the community. According to a CARE technician, this system will help the municipality rationalize the subsidies in local services and taxes. Also, CARE is assisting the municipality in determining the cost of services to calculate proper tariffs. According to the Mayor, CARE's training has increased the level of staff dedication and satisfaction in the work place.

The Municipality has concluded the Strategic Development Plan that has been preparing since 2002. This Development Plan has produced agreements with other institutions interested in the municipality. Children Task forces are working in the garbage collection processes and also the "Health Brigades" have done a great job in the prevention of diseases.

According to the Mayor, with help of CARE the municipality has drastically changed. The staff capacity has increased and the Cantonal authorities have been able to reach the rural areas that in other situation would've been impossible.

When asked about the financial situation of the municipality, the Mayor accepted that they can only cover around 30% of the current expenditures, with the balance paid out of the government transfers. Also, the Municipality is not yet prepared to do participatory budgets and is not interested, at this moment, in accountability sessions with the community.

Garbage Collection and Landfill

The Team visited the just initiated sanitary landfill implemented in Arenillas with CARE's sponsorship. The program starts with the community training in the recycling process and the provision (at a cost) of the containers needed to dispose of the classified garbage. Then, the program has to design collection routes, prepare adequate access roads and oversee the landfill construction.

The landfill design should be a technical process, whose first activity is the landfill site and size selection. The site selection's important because of the need to have adequate location and winds orientation to prevent the spreading of bad odors and flies. Also, it's important that the site can offer the possibility of soil to be used to cover and compact the buried garbage. The size is

important because the life of the project has to guaranty the capacity to treat the amount of garbage produced during a period of time. In the case of Arenillas, the urban area produces in average 6 tons of garbage per day. The Municipality build the landfill in a 10 Ha. lot (normally the design is for between 10 and 20 years. In the case of Arenillas, the design was made for 15 years).

The garbage is classified and collected separately in different days. The organic garbage is deposited in a compost producing space where its removed periodically and the compost produced is marketed with local farmers and producers. The inorganic garbage is spread out in the landfill, compacted and covered with soil and compacted. When a trench is filled another one is opened until the site reaches its capacity.

Part of the design should also be the treatment plant for the inorganic matter (“Lixiviados”), that have to be specially treated to avoid health risks. In the case of Arenillas, the treatment is complete. However, no water facilities were found.

The site is well fenced and protected and a building for the site watchman was built.

Issues identified:

- a. The community has developed a high level of expectation on the Municipal Development Plan. However, the Mayor has clearly expressed the lack of resources to undertake any activities. This situation may have a definite impact in the community if the municipality is unable to meet the community expectations.
- b. The systems implemented need a considerable amount of technical and financial resources. At this particular moment CARE is taking care of the expenses, but once the institution leaves, resources have to be made available for the systems maintenance.
- c. The financial situation of the municipality is due to the lack of political will to impose tax and fees collection. If this situation's not resolved and the government implements restrictions for the use transfers, the municipality runs the risk of losing not only the community enthusiasm but the municipal staff confidence.
- d. The profiling may prove very dangerous when used to segregate the community. The provision of subsidies may be done in a less damaging method.
- e. The landfill system may need some mechanical equipment to improve the operation of the system. A tractor is necessary to spread out the garbage. Water is needed to maintain certain level of humidity and for staff hygiene.

Visit to Municipalities in the Morona /Santiago Region

1. Sucúa

Sucúa is, after Macas, the second most important municipality in the Morona Santiago Province. It has an estimated population of around 15,000, of which 6,000 are urban. Sucúa has been preparing a Municipal Development Plan since the year 2000, but it's not under implementation

yet. The Mayor of the Canton told the Team members that he's in the process of integrating an implementation committee to help the Cantonal Council.

This municipality is a well-structured local government. However, asking the Mayor which are his priorities for the Canton's development and improvement he mentioned the need for a comprehensive technical assistance with emphasis in municipal finances. According to the Mayor, the Municipality only generates 20 % of its operating expenditures. The city cadastre, urban and rural, incorporates as land values, symbolic figures that produce almost nothing in taxes (\$8.00 to \$50.00/ Ha, when the market value is between 7 and 15 thousand dollars). This is the reason why the municipal tax base is extremely weak and depends on the government transfers to pay for operating expenses. All municipal projects in the rural area have a community counterpart, but not those of the urban area.

The municipality is operating a well-designed sanitary landfill that generates its own operating expenditures. The project was fully designed and implemented in a 14 Ha, that could last more than 50 years, considering that the amount of garbage produced per day is only 1.5 Tons. This project was constructed with government bank funds. PSUR helped finance a impermeable membrane and organize the landfill's operations.

Issues identified:

- a. The Team could not determine the willingness of the community to participate in the implementation of the Cantonal Development Plan. But even if we assume that the community will participate, the Municipality lacks the capacity to respond to the expectations created by the plan.
- b. The technology used for Cadastre implementation and the financial information system will need substantial technical and financial resources after PSUR is completed. The sustainability of the implemented systems is greatly dependant on the resource availability. It's important to consider that this municipality is located in an isolated rural region, where technology is not necessary available.
- c. The landfill produces its own operating expenditures. However, the revenues are combined with the limited municipal revenues, subjecting the landfill maintenance to the availability of general municipal resources.

2. Logroño

The Team was supposed only to visit a water project in a Logroño's rural community. However, the Team met with local authorities to have a better idea of the local government in this area of the country. Logroño has not initiated a municipal strengthening process but the Mayor's very interested in it. Also, the municipality is planning to implement a sanitary landfill and to implement a Municipal Development plan elaborated with the help of an European country that the Mayor didn't want to mention. The municipality does not have a tax base. There are no taxes in Logroño. The only municipal revenue comes from the water tariffs, where the municipality charges a base tariff of \$2.50 per family plus an amount per cubic meter. To finance operating expenditures, the municipality relays on government transfers. When asked about the legal

limitation on the use of transfers to pay for operating expenditures, the mayor responded that nobody pays attention to that

Issues identified:

- a. Even though the Team did not have the opportunity to meet municipal staff, the municipal organization appears to be very weak and lack resources.
- b. It's not very common to find a municipality that openly accepts that it doesn't have a tax base. Any planned strengthening should consider the financial situation, as the basis for sustainability.

3. Macas

The Team met with the Mayor of Macas (the Morona Santiago provincial capital), in order to have a better idea of the general situation of the Province and its local government. The Mayor thinks that he has an efficient and effective local administration (the Team did not visit the Municipality and did not have the opportunity to interact with municipal staffers). The municipality has an urban cadastre implemented and charges urban property taxes. The Mayor's expecting to complete in the next six (6) months the rural cadastre that he expects will produce substantial income for the city. The city has initiated a participative budget process that the Mayor considers will be very successful. However, when asked about local revenues he admitted that the Municipality only generates \$500.000 out of a \$3.5 million budget. The balance has to be paid out of government transfers.

The Municipal Development plan is being developed with the cooperation of the National Association of Municipalities (AME), CARE and the SNV. The Mayor expects to have definite community participation to implement the Plan. Finally, the Mayor considers that its first priority is the improvement of the water system that he considers very poor.

Issues identified:

- a. The rural cadastre is being implemented with the help of ECOLEX using advanced technology. Maintenance may become a problem once the donors complete their projects.
- b. The small amount of municipal revenues makes very difficult the implementation of a Municipal Development Plan without a strong community participation support. Municipal capacity may become another limiting factor.