

FOOD SECURITY IN GUATEMALA:

Evaluation of the Title II
Program 2001-2006

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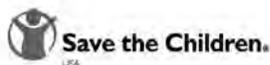


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Acronyms

ADIPO	Asociación de Desarrollo Integral para el Oriente
AINM-C	Integrated Mother and Child Attention at the Community level - government initiative
ASOGUADI	Asociación Guatemalteca de Desarrollo Integral
ANACAFÉ	Asociación Nacional del Café (National Coffee Association)
CARE	Cooperative American Relief Everywhere
CHW	Community health workers (promoter, vigilantes or guardians), either volunteer or with minimal incentive
COCODES	Local development councils (Consejos comunitarios de desarrollo)
COMUDE	Consejo municipal de desarrollo
CRS	Catholic Relief Services
CS	Cooperating sponsor
CSB	Corn soy bean blend
DAP	Development Assistance Program
EWS	Early Warning System
FAO	Food and Agricultural Organization
FFP	Food For Peace
FFW	Food for work
FORTALEZA	Project in CARE DAP to strengthen democratic processes
GDA	Global Development Alliance
GM	Growth monitoring
GMP	growth monitoring and promotion
GOG	Government of Guatemala
ICTA	Instituto de Ciencia y Tecnología Agropecuaria
IGA	Income-generating activity
IGSS	Instituto Guatemalteco de Seguro Social
IMCI	Integrated management of childhood illness (in Spanish AIEPI) – WHO initiative
IMDI	Instituto Mam de Desarrollo Integral
INGO	International NGO
MCH	Maternal and child health
MCH/N	Maternal and child health/nutrition
M&E	Monitoring and evaluation
MSPAS	Ministry of Health and Social Assistance
MYAP	Multi Year Activity Proposal
NGO	Non-governmental organization
OFDA	Office of Federal Disaster Assistance
OPM	Oficina de Planificación Municipal
PAHO	Pan American Health Organization
PDR	Rural Development Program
Qq	Quintal (hundredweight)
SEGEPLAN	Secretaría General de Planificación
SESAN	Secretaria Ejecutiva de Seguridad Alimentaria Nutricional
SHARE	Self Help and Resources Exchange (Guatemalan NGO)
SO	Strategic Objective
SODIS	Method of solar disinfection of drinking water
TANGO	Technical Assistance to NGOs (Consulting Company)
TBA	Traditional Birth Attendant
TOR	Terms of reference
TPM	Team planning meeting
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

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Illustration credits

All photos are by Jeff Bentley.

Map of municipalities by Alma Lucrecia López.

1 Summary

This evaluation of USAID's Guatemala U.S. PL 480 Title II Program was carried out by TANGO International in compliance with the Terms of Reference (Section 2 and Annex L). Some 38 communities were visited during five weeks of field work, covering all four Development Assistance Programs (DAPs).

By its nature this effort was qualitative; field observations were limited to a small, non-random sample of the more than 1,600 communities served by the DAPs (Section 2.2). Quantitative surveys to measure final results were not yet available; they are scheduled for later in 2006. Nonetheless, the evaluation team had an unparalleled opportunity to observe the salient strengths and weaknesses of the food security program, and the achievements it has accumulated since 2001.

Background (Sect. 3.1, Annex M).

Chronic malnutrition in Guatemala is the third worst in the world. Stunting rates are at 70% among the population of indigenous children. Based on per capita income (\$1460/year), Guatemala would not qualify as a priority country for food aid. But the country has the world's third most unequal distribution of wealth.

Unequal distribution of land and income mean that malnutrition is high among the rural and indigenous people, especially in former conflict areas. Since 1996 the country has been recovering from the effects of 36 years of civil war, violence, and repression. Poor access to land, water, health services, schools, and appropriate farm technology continues to keep many rural Guatemalans very poor, with little hope for improvement in living standards, especially among the indigenous peoples.

This situation has been regularly exacerbated by severe shocks. Periodic damage to croplands and rural infrastructure has been wrought by hurricanes and tropical storms, most recently by Hurricane Stan in October 2005. World coffee prices plummeted from 2000 to 2004, with grave consequences in Guatemala for the masses of rural poor who depend on seasonal employment on coffee plantations. Drought, unemployment, and unsustainable land use led to famine conditions in some places in 2001-2003.

US food aid aims for sustainable development, improving household nutrition, integrating food aid with other assistance, and concentrating on populations where food insecurity is greatest. The Title II program, USAID/Guatemala's largest, is designed to accomplish that.

The Title II Program (Sect. 3.2).

The U.S. PL 480 Title II program in Guatemala consists of four DAPs organized by as many non-profit Cooperating Sponsors (CSs): Save the Children, SHARE, Catholic Relief Services (CRS), and CARE. Together they work with over 105,000 food insecure rural households pertaining to over 1,600 impoverished communities in 52 municipalities of eight of Guatemala's 22 Departments (Table 3.2 and map following).

The DAPs import food commodities donated by USAID's Food for Peace program, 'monetize' (sell) 60% of them to obtain funds to run the program, and distribute the rest to households participating in a maternal-child health and nutrition (MCH/N) program for pregnant women and children under three years old (and to a lesser extent to participants in food for work projects). Health promoters and local committees weigh the children each month to track their health and growth, teach the mothers about health, hygiene, and child nutrition, and distribute food rations. During an average year, the MCH/N interventions reach about 70% of the 105,000 participating families.

About 26% of the families participate in agriculture and income generating activities that improve farm management, teach new farming or income generating techniques, and made modest investments (in chicken

coops and corn cribs, for instance). The DAPs would spend more on agriculture/income coverage if they had more funding, or were allowed to monetize more.

Around 20% of the participating families are engaged during a typical year in small infrastructure projects (much of it supported with food for work, FFW) or in training and activities to strengthen grassroots participation, organization, and empowerment (democracy/governance interventions), and in the case of one DAP, to also strengthen the role of local governments and municipal institutions in support of the food security of the population.

Relation to USAID's Country Plan (Section 3.3, Annex H).

The food security program strongly supports USAID's Country Plan with its three Strategic Objectives:

- SO 1, More Responsive, Transparent Governance;
- SO 2, An Open, Diversified, Expanding Economy; and
- SO 3, Healthier, Better Educated People.

The activities of the DAPs respond to these SOs in a variety of ways, especially at the local level. There are also aspects relevant to the crosscutting objectives and emergency adaptability provisions. These relationships may not always have been recognized.

SO 1 Despite current priority on promoting responsive, transparent governance, proposals from some DAPs to work in that area over the years have not been approved. Nonetheless, each DAP strengthens participation, organization, and empowerment at the local level. All support rule of law, transparency and accountability, and engagement of civil society in local governance processes. One DAP works in the democracy/governance area at the municipal level.

SO 2. The DAPs have promoted market oriented, diversified, and growing economic activities at the village level. They have supported resolution of land conflicts, more entrepreneurial approaches to small-scale production, soil and natural resource conservation, better farm management and technologies, and improved access to markets and credit.

SO 3 Improved health and nutrition is at the core of each DAP. Adult education for participants covers practical topics like health, hygiene, nutrition, organizational and administrative skills, improved agriculture, and income generation. DAPs support decentralized health service delivery, training of community health committees and promoters, and interactions with local health service providers; they help improve transparency and resource use. Improved management of child and maternal health, fostered by the DAPs, is lowering infant mortality, raising immunization rates, and reducing chronic malnutrition in young children.

Main findings (Sections 4-6):

Similarities among the DAPs were greater than the differences between them. Differences within the set of communities served by each were often greater than the average differences between the DAPs. Overall, the DAPs have been successful. Food security appeared to have been increased in the target zones, as evidenced by the following findings.

MCH/N (Sections 4.2, 7.2, Annex K; Annexes A-D and G)

- There is consistent improvement across all DAPs in the growth of small children participating in the MCH/N interventions. Food distribution was good in all the CSs. Community members gained experience managing the distribution and the food is appreciated and eaten by the families. Relevant observations include:
 - ⇒ Food is the main incentive for participation in growth monitoring and health activities.

- ⇒ Distributing family-sized rations helps assure that more of the food gets to the child; also they may free up cash that can be spent on nutrient-dense foods such as fruits, eggs, or meat.
- ⇒ There is little relationship between ration size and reduction of child malnutrition. Since a child can eat only so much, targeting more food only to the child is not realistic. This finding also highlights the need for education on feeding behaviors and biological utilization.
- Overall, the CSs have been diligent in implementing maternal-child health and nutrition activities. Each CS has applied important innovations or best practices. The results of the quantitative surveys to be conducted in the last months of the program will further attest to the impact of these efforts.
 - ⇒ Household cleanliness, child health, and personal hygiene were improved, as shown by follow-up household visits to monitor behavior change.
 - ⇒ The CSs have all invested considerable effort in adopting and implementing the AIEPI/AINM-C strategy, which provides a uniform package of activities and messages, and have trained many community-level personnel. The MSPAS and Calidad Project can learn from these models, which will help with national expansion of the strategy.
 - ⇒ Due mostly to project design and to content of the AINM-C modules, DAPs have paid insufficient attention to breastfeeding and complementary feeding practices. Improvements in these practices can lead to as much as a 45% reduction in chronic malnutrition.

Agriculture and Income Generation (Sections 4.3, 7.3; Annex J)

- Agricultural and income projects were generally successful; coverage was unfortunately quite limited. All of the CSs use some version of the group and promoter model described by Bunch (1982). Most use groups for training, but actual production is done by individual families.
 - ⇒ Good activities use products that local people already have experience with, but extensionists teach them appropriate technologies to improve them (often with modest capital investments).
 - ⇒ Good income generating activities are driven by both supply and demand: a good ability to supply the product and strong market demand for it.
- There is little non-farm production, mostly weaving and some activities with small animals (bees, hens, fish) that take up little space. They may be an economic option for rural people with little or no land.
- Most of the agricultural and income generation activities seem sound, but we lack the quantitative data to say whether they are making a difference—if the health and nutrition of children improves when their parents grow more or earn more.
- Access to credit is important. CRS and Save the Children, using DAP funding, have created independent microcredit programs that provide small loans to groups and individuals. SHARE and CARE have generated revolving credit funds in communities, based on repayment of start-up funds or materials loaned by the DAP to participants.
- Recommendations to increase farm yields and product sales
 - ⇒ The DAPs should avoid demonizing chemical fertilizer. Small doses, properly applied, combined where appropriate with organic fertilizers, may help smallholders increase yields.
 - ⇒ Some of the more promising cases are chickens, and home gardens with drip irrigation. Vaccinating poultry, goats, pigs, and other farm animals will help to keep them healthy, and can be a sustainable income source.
 - ⇒ Every household should have a grain bin or a corn crib, to make stored maize and beans last longer, and to keep out rats, mice and weevils.

- ⇒ The best way to reduce the use of insecticides in vegetable gardens is not to spray homebrews, but to plant species with few insect pests.
- Main conclusion based on successful project activities: Make a modest investment, and teach some new technology. Build on a product that local people know, and which has a local demand.
- If there is a weakness with agriculture and income-generation activities, it is that only a small percentage of communities have them. The CSs would fund more agricultural activities if they could.

Democracy/Governance (Sections 4.4, 7.4; Annex I)

- Organization, participation, and empowerment (democracy/governance) results were promising where supported, but mixed and often in need of improvement where not covered due to past USAID reluctance to underwrite such activities in the DAPs. Only one DAP had a formal project in that area.
 - ⇒ Greater citizen participation, inclusion, organizational skills, and empowerment at the local and municipal appeared to increase the impact and sustainability of the DAPs.
 - ⇒ One DAP was able to catalyze municipal level participatory local development processes, using mechanisms provided in recent laws, strengthening support for food security and related programs.
 - ⇒ The prospect of building institutionalized support for food security by this means suggests the need for increased emphasis on democracy/governance by the Title II program.
- Principal recommendations included:
 - ⇒ Increase coverage. Incorporate specific activities to build democratic processes in communities and municipalities, to support integrated development, and to increase sustainability at all sites.
 - ⇒ Enable communities become protagonists. Involve communities from the first in diagnosis and activity design, then in implementation and management, including monitoring, evaluation, and making adjustments. Build their capacity to achieve food security and related goals. Use past successes as learning places, and experienced peers as guides.
 - ⇒ Develop skills in all for participation, organization, and empowerment, from personal expression to social auditing.
 - ⇒ Leadership. The DAPs need to improve the quality of local organization and leadership, transcending fiefdoms and uni-personal styles.
 - ⇒ Build self-sufficiency, not dependence. Focus on helping staff become enablers, facilitators.
 - ⇒ Exit strategies. Operative strategies to graduate communities and move Title II resources on to other, more food-insecure places, monitor post-graduation progress, and report results.
 - ⇒ Closely woven support networks. Establishment of participatory local development processes, civil society and private sector networks, strong local partners, and access to credit and technical support.
 - ⇒ Appropriate indicators. Develop a set of indicators that assess progress toward these goals.

Infrastructure and Food for Work (FFW; Sections 4.5, 7.5)

- Assure appropriate use of FFW and the improvements it supports: best when community oriented, with long term impact on food security, avoiding appearance of benefit to individual households and farms.
- Use FFW and infrastructure interventions as catalysts to strengthen community cohesion, participation, organization, and project development/management skills, rather than deepening tendencies to dependency and patronage. Avoid “make work for food” in order to meet food distribution goals.

- Make adequate provisions for sustainability of all infrastructure projects: commitments by communities, operation and maintenance agreements, collection of user fees, municipal involvement—whatever works.
- Use “competitive” selection processes for FFW projects, so that communities see themselves as obtaining the resources on merit rather than as a gift.
- Strengthen COCODES and COMUDE by using them as the forums where options and priorities for FFW and other projects are discussed and decisions are taken.

Environmental Protection (Sections 4.6, 7.6)

- Environmental protection and compliance with Regulation 216 improved after the training workshops in 2003 and 2004 and was found to be generally satisfactory. Recommendations include:
 - ⇒ Address FFW projects with IEEs, implement LAC guidelines for environmental compliance, and include funding for ensuring this compliance. Improve compliance with IEE mitigation requirements, where needed, and assure proper buy-in by participants.
 - ⇒ Access the experience of other USAID projects to develop awareness of and solutions for emerging environmental concerns.
 - ⇒ Foster regular sharing among the DAP staffs of issues, lessons, and best practices in regard to with Reg. 216, including the mechanisms and materials developed for monitoring and mitigation.
 - ⇒ Designate one staff member from each CS on award of MYAPs to complete Reg. 216 documentation, implement mitigation measures, and report on compliance and effectiveness.
 - ⇒ Consult USAID’s Environment Office on all phases of project development.

Monetization (Sections 4.7, 7.7)

- Monetization has produced the funding required to date but the single product/single buyer model exposes the DAPs to high levels of uncertainty and risk. Improvement is needed: more buyers, different products, more competitive processes—though these may not be feasible in the Guatemalan context.
 - ⇒ Further explore new products for monetization, even if for smaller volumes, and adoption of a market basket approach that includes a combination of commodities.
 - ⇒ With the closing of other Title II programs in Central America, explore third country monetization.
 - ⇒ Consider developing the capacity of small and mid-sized buyers, including training in procedures, fostering access to letters of credit, etc. Higher operational costs may be offset by lower levels of overall risk to the consortium.
 - ⇒ Given that large international grain companies are active in Guatemala, it may be feasible to engage one as the agent for monetization. They might also handle third country sales.
 - ⇒ Develop a plan of action through in-depth review of the current monetization program and potential alternatives by experienced traders and monetization experts.

Monitoring and Evaluation (Section 5)

- Monitoring was generally adequate; analysis of data, qualitative evaluation, and the use of this information for improved decision making could be strengthened.
 - ⇒ M&E tends to focus on quantitative data on processes and products, rather than on quality of outcomes; sometimes it does not provide flexible, updated information for management level decisions and strategic program guidance.

- ⇒ Monitoring efforts often do not translate into creation of sustainable capacity at the community and municipal levels.
- ⇒ In short, M&E could use some revitalization, highlighting its strategic role in program guidance and sustainability.

Crosscutting issues and recommendations (Sections 6 and 7)

- Site selection. While the DAP sites are serving highly food insecure populations, it is not always clear that the selection process targeted the most vulnerable communities available. Institutional priorities and constraints also enter into the decision making process. There is a relationship between site selection and the need for sustainability criteria, exit strategies, flexibility, and rotation of sites. These processes must be linked to two sometimes contradictory goals: that of working with the most food insecure populations and that of promoting sustainable food security in a cost effective manner (Section 6.1).
- Create empowerment, not dependency. Foster mechanisms that build capacity and empower participating communities, avoiding those that replicate paternalism and reinforce dependency. Opportunities to build self-reliance are often missed due to provision of top-down solutions rather than enabling individuals and groups to work out their own solutions (Section 6.2).
- Integration of interventions. Greater coverage and integration of the agriculture/income, and democracy/governance interventions would lead to greater impact and sustainability (Section 6.3).
- Sustainability and the need for exit strategies. Lasting food security depends on building in sustainability factors, graduating communities, and developing post-intervention monitoring and support systems (Sect. 6.4).
- Hurricane Stan. Recovery and adjustment is well under way; but impact on food security will be felt for several years, especially in the most isolated and worst-hit places. Fewer than half of the damaged roads have been repaired. Thousands continue to live in temporary shelters. Many families had “quick fixes” to homes, latrines, water systems and land badly damaged by Stan that may break down in the next rainy season (Section 6.5).
- Reduce migration. Seasonal migration to earn money during the dry season is the single largest factor undermining food security. It harms family health, nutrition, children’s growth, education, and community organization. Where feasible, irrigation systems are an effective solution. (Annex F.)
- Mobilize more non-food resources through increasing monetization and tapping other in-country and outside sources, to support the greater integration of components and the reduction of annual migration. This implies improved coordination with other USAID programs.
- Increase capacity, flexibility, and adaptability at all levels—families, communities, local government, the Title II program, and beyond—to mitigate risks, address emergencies, and meet evolving needs.
- Analyze and communicate results to show the impact of interventions, identify best practices, and attract more resources. Study graduated communities from past and current DAPs to determine how food security measures have lasted and what post-project support systems best sustain key practices.
- Access ITSH funds where feasible to cover logistics and transport, freeing voluntary quotas for community use-- sustainability funds, etc.
- Improve coordination with USAID SO programs to increase impact of the Title II programs, mobilize additional resources, and support the Country Plan Strategic Objectives.

2 Introduction

2.1 Summary of terms of reference

The evaluation should describe the impact of USAID's Title II program and suggest ways of improving it in the future. The points summarized here can be found in their original form in Annex L.

General issues. What was the impact of the project on target groups? What are the constraints on food security? Were the most food-insecure communities chosen? What were the most successful activities? Are the indicators appropriate? How can the program be better integrated with USAID/Guatemala strategy and Stan Reconstruction Strategy? Are the CSs' indicators consistent with the Food for Peace indicators? Are the rations distributed appropriately? What are the specific activities that should be promoted?

Income generation. What is the impact and is the approach integrated to address the "greatest constraints to increased income and food security"? Are the activities supply- or demand-led? Recommendations.

Agriculture and natural resource management. What is the impact? Is agriculture integrated with the rest of the program? Recommendations.

Water and sanitation. Impact? What are the successful experiences?

Regulation 216 (environment). Are the CSs using Regulation 216 as the "principal environmental tool?" What does each CS know about Reg. 216? Are they fulfilling it? Have CSs developed their own environmental tools or guidelines? Do they have their own environmental monitoring systems?

Maternal and child health and nutrition. Are the communities and municipalities participating? Is the program linked to the Ministry of Health activities? Is health and nutrition improving in the communities? Does the program overlap with USAID bilateral aid activities?

Democracy. Are the communities integrated into COCODES? Do the CSs support the COCODES, and take the municipal plans into account? Are communities participating in the program? Do mayors know about and support the program? Do DAPs with fuller democracy programs, like those of CARE and to a lesser extent CRS, have greater impact or more sustainability?

Monitoring. Evaluate i) the collection, analysis, and use of indicator data; ii) the current structure of monitoring systems and data accuracy, and iii) the information flow within regional and head offices. Are indicators reasonable? Are data shared with communities? What indicators should be added?

Monetization. Is the level of monetization of the commodities appropriate?

Real questions. Besides asking for an account of results and recommendations, these TORs ask specific questions. Is the program aimed at the real obstacles to improving incomes, health, and nutrition among poor Guatemalans? Do the income-raising activities offer what consumers want, or what villagers produce? Is agriculture integrated with the rest of the project? Is health-and-nutrition coordinated with the Ministry of Health? Do CSs know and follow environmental guidelines? Is the monitoring accurate and based on the right indicators? Could poor people be better served by monetizing a larger proportion of the commodities?

2.2 Evaluation Method

TANGO, USAID and the four cooperating sponsors (CSs) agreed to use a participatory approach for the evaluation. The three TANGO consultants were the core evaluation team, but the overall team incorporated people from the CS Guatemala City offices, the regions, and local partner staff. (Annex E.1 lists these participants.) During the field visits, all team members present had the chance to collect data, observe project activities, and discuss implications. The team's purpose was to determine, by consensus as much as possible, what should be said about the DAPs: their impact, successes, problems, and lessons learned.

To organize activities and agree on the objectives and the work plan of the evaluation, TANGO led a two-day team planning meeting (TPM) the first week in-country. Outputs included a consensus on expectations, a field schedule, and draft interview guides for the field.

The team visited 38 communities in 20 days, to take into account geographical differences and to see various communities from each CS. The evaluation team used semi-structured interviews and direct observation of project activities, at sites listed in the chart in Annex E.2. Those interviewed included program participants, community-level staff, community committees, program staff, and staff of local partners and collaborating institutions. Where possible they were done directly with the subject, or with groups of peers. An advantage of interviewing people without the staff of the CS or its partner being present, found in all the DAPs, was the freedom for the participants to speak freely and comfortably, and to describe the situation in their own way. This was not always feasible, given the size of the group that converged on most field sites.

Before the evaluators arrived in Guatemala, each CS was asked to rank its program communities as strong, intermediate, or weak. During the TPM they were asked to choose 8 communities to visit: four strong and four weak ones, taking into account travel time and coordination with other CSs. Each CS decided how many communities to visit in each region. The communities chosen were widely distributed geographically.

The evaluation was primarily qualitative, since none of the CSs have yet done a final quantitative survey. The evaluation team did have access to quantitative data from annual reports and M&E databases, which was discussed with the CSs and included in the evaluation. A questionnaire was circulated to all the CSs asking each to provide its own answers to the questions posed in the TORs and on other salient issues identified in the TPM. Similarly, data was requested for the tables on DAP characteristics, resources, agriculture/income and infrastructure projects, as well as on food rations. The staff of the PVOs sent the TANGO team many documents at its request (see listing in Annex O.2), as well as data on specific topics. Follow-up interviews with PVO staff and leadership were qualitative, and helped synthesize observations made over five weeks.

The impossibility of obtaining sufficiently large and representative samples to be able to characterize performance levels of individual CSs, or to accurately compare them within the time and resources available, was evident from the planning stages. Among the factors that limit the ability to make unequivocal statements from the field observations about the programs of each DAP or detailed comparisons among the four CSs were the small number of communities visited, the short time available to observe each, the probable biases in their selection, and the great variability among communities and among local implementation efforts by the same CS. Specifically:

- The team visited 38 communities, at least 8 from each CS, of a total of over 1600.
- It spent from 1.5 to 5 hours in each place, interviewing those representatives of committees and participants that happened to be available, usually previously convened by the CS or its local partner—a non-random sub-sample of those who might have been interviewed.

- The sample of communities was chosen to illustrate a variety of activities within a limited number of visits. For instance sites with agricultural interventions were included almost everywhere, though they make up only about 26% of the total number of communities. Likewise, an effort was made to include a higher than average number of communities with FFW and infrastructure projects. And combinations of communities were chosen in each region so as to form a logistically tractable, reasonably accessible sequence. In practice, outlying communities that required over two hours drive each way were seldom included. Such factors made for a non-representative sample of communities. Even though it was structured to include both strong and weak communities chosen by each CS, within that structure it tended to include sites that were more accessible and with more interventions than average. This almost certainly biased the sample toward sites with more favorable results than would have been seen in a random sample of sufficient size (had sufficient time and resources been available to do one).
- The history of communities previous to DAP interventions was obviously a key factor in program performance, one that could not be controlled for. For example, many sites visited had been subject to previous interventions by earlier projects (DAPs or others); some had been strongly affected by the decades of oppression and violence; others were particularly prone to seasonal migrations; some were within the areas established by private sector horticultural export businesses for purchase of high value crops from small farmers. There was no way to determine whether the range of historical situations encountered in the sample represented well universe of DAP communities.

The evaluation team surely observed some things that were exceptional—better or worse than the norm—and many that were normal, but it was often not possible to determine which was the case. Some kinds of observations were so frequent and consistent that they left little room for doubt—for instance, raising chickens in pens was something that could be seen at numerous sites and that was virtually always successful. However, with smaller sample sizes there was often little basis on which to distinguish. If seven cases of something were seen (composting pits, say, or environmental mitigation measures), and two of them were bad while five were good—or the reverse—there was no way to know what the overall situation might be in the 1,600 communities. And if those two happened to be from just one CS and the other five from two more, there would be no way at all to extrapolate to the general situation or to compare CSs with any accuracy (many reviewers asked for conclusions in situations like this). All the team could do is report what it saw and identify issues that it felt were relevant. Naturally some misinterpretations will have been made. As a general practice, the report sticks to those cases in which observations were frequent and consistent enough, or were sufficiently well backed by other evidence, to have left little doubt about the conclusion.

The absence of clear-cut differences between the four DAPs was another source of uncertainty. Rather than striking, easily seen distinctions, few consistent patterns were observed among the CSs. Each had stronger and weaker communities, and activities that were successful at one site and less so at the next. Approaches and techniques overlapped greatly, so that large samples would be required to distinguish patterns.

Despite that, on a qualitative level five weeks of field observations allowed the team to form an extensive set of impressions—working hypotheses, in effect—and to raise a robust set of issues. In conjunction with the documentation and indicator data provided, some conclusions can be set forth with a good degree of confidence. With the feedback of the participating organizations, many of those have been confirmed; others have been adjusted or restated.

Feedback. There was a report on preliminary findings on 8 March, with the PVOs, and USAID, where TANGO gave power point presentations summarizing the final report and on recommendations for the next phase, the MYAPS. Comments by USAID and the PVOs were noted for incorporation into the draft report, which was circulated for further comment. The extensive comments and corrections received from each CS and USAID on the draft report have been incorporated into this final document.

3 Country Situation: Guatemala & the Project

3.1 Guatemala, background

In 2000 and 2001 when the current DAPs were written, Guatemala was enjoying unprecedented economic growth. The 1996 Peace Accords, ending 36 years of civil war, violence, and repression, were being implemented. The PVOs, however, knew the reality of pervasive rural poverty and food insecurity, and that specific populations were not benefiting from either the economic growth or the expanded services guaranteed by the Peace Accords. Poor access to land, to potable and irrigation water year-round, and to quality health services and schools continues to keep many rural Guatemalans very poor and with little hope for improvement in their standard of living. This situation had been exacerbated in late 1998 by severe damage to croplands and infrastructure from Hurricane Mitch in several zones that became DAP target areas. Since the DAPs were started, three other events further disrupted food security in rural Guatemala.

In the face of massive exports of cheap coffee from Vietnam, world coffee prices plummeted from 2000 to 2004. This had grave consequences in Guatemala. Since the poorest of the rural population depend on seasonal employment on coffee plantations for cash income, they were seriously affected by lost jobs or underemployment.

During this crisis, several studies in the country revealed serious pockets of malnutrition, where drought, unemployment, and unsustainable land use led to famine conditions in some areas in 2001-2003. Due to this, two of the implementing PVOs, CRS and SHARE, adjusted their target areas or interventions to address affected populations. USAID approved addendums to those DAPs in 2003 to reflect these changes.

In early October of 2005, Hurricane Stan moved in from the Caribbean, and though reduced to the category of a tropical storm, hung over the western mountains dropping record amounts of rain for several days. Massive landslides and flash floods destroyed homes, fields, roads and highways, and the rain ruined both coffee and maize that was nearing harvest. USAID authorized the PVOs to divert personnel and resources to address the emergency, even outside DAP target areas. With the timely arrival of OFDA funds and rapid re-opening of major roads, the DAP programs resumed normal implementation quickly, but some target populations lost livelihoods and infrastructure that had been developed under the DAPs.

Hunger and food insecurity in Guatemala.

Guatemala's chronic malnutrition, an accepted measure of food insecurity, is the third worst in the world (World Bank 2003). Stunting is at 70% among the population of indigenous children (GOG 2004). The best available summary of the food security situation and the factors that contribute to it is Ziegler (2006), Report of the Special Rapporteur on the right to food to the U.N. Commission on Human Rights, Mission to Guatemala. Please see the excerpt on hunger and food insecurity in Guatemala in Annex M.

Food security strategy.

Based on per capita income (\$1460/year), Guatemala would not qualify as a priority country for food aid. But Guatemala has the world's third most unequal distribution of wealth (USAID 2003). Inequitable distribution of land and income mean that malnutrition is high in rural zones and among the indigenous peoples, especially in former conflict areas. Production of basic grains (maize, beans rice) has fallen or stagnated since the 1980s, partly as a result of lack of appropriate technology, very small farm sizes among grain producers (most below 1.5 ha), and droughts and floods. In general, food insecurity need not be tied to food self-sufficiency; a country can earn income from export agriculture, or by producing other goods and services, and import food. But in Guatemala "commercial food imports do not reach the most vulnerable

groups” (USAID 2001: 9). Departments like Escuintla and Huehuetenango have high agricultural exports (e.g. coffee and sugar), and some of the lowest average household incomes. Chronic malnutrition in Guatemala increases with age of the children, so that 15% have retarded growth at six months of age, but 50% are underweight by 12 to 23 months, once they are weaned from breast-milk. According to USAID’s food security strategy, (USAID 2001), US food aid must aim for sustainable development, improving household nutrition, integrating food aid with other assistance, and concentrating where food insecurity is greatest. Unequal distribution of land, lack of access to appropriate farm technology, problems with breastfeeding and feeding of small children, and structural problems in government services confound food security for poor, rural Guatemalans, especially the indigenous peoples (USAID 2001).

3.2 The project, background

Brief Description of the Program. This Title II project was about helping 105,000 Guatemalan families to nourish themselves better. It imported food commodities from the USA, ‘monetized’ (sold) 60% of them in order to get funds to run the program, and distributed the rest to poor, rural households with children under 36 months of age, or with pregnant mothers. Health promoters weighed children to track their health and nutrition, and taught mothers about cooking, hygiene, and feeding children. This may seem counter-intuitive, but it is not. Humans do not instinctively know how to feed their children, and rural Guatemalans may throw away colostrum, stop feeding sick children, or not give kids enough time to eat. By the same token, middle-class North Americans feed their children too much junk food.

The project also taught about 26% of the families new farm or income generating techniques and made modest investments (in chicken coops and corn cribs, for instance). The project could have spent more on agriculture if it had monetized more food, and had more to spend on agricultural technicians and farm supplies. There was also some work with local people on small infrastructure projects (much of it supported with “food for work”) and some strengthening grassroots participation and democracy (locally-elected committees of villagers).

Besides answering the questions in the terms of reference, USAID also wanted the project to be documented for a wider audience. The immediate audience of this report is USAID, the four ‘cooperating sponsors’ who administer it for them (CARE, CRS, Save the Children, and SHARE), and the NGOs who work with communities (for some of the CSs). Hopefully what was learned is general enough to interest other development specialists and people concerned about alleviating poverty and malnutrition in Guatemala.

Organizational Style. As the following chart shows, each PVO has its own organizational style. Each PVO works through one or more committees organized in each community. Community leaders are trained as promoters (names vary— “guides” in the case of Save the Children) by personnel pertaining to the PVO or its partners.

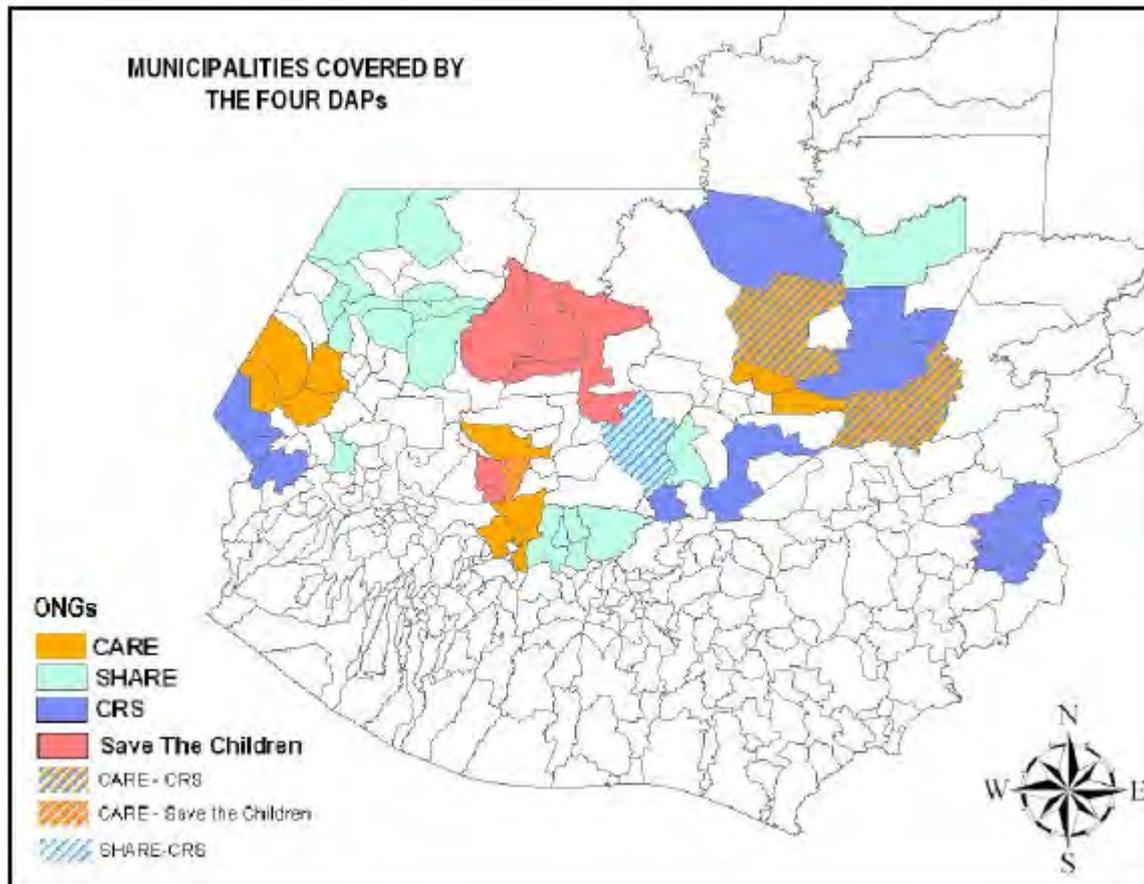
CARE	SHARE	CRS	Save the Children
Works with municipalities, municipal institutions & health service providers, and NGOs	Works through a different, municipal-level NGO partner in each municipality	Partners with regional Caritas, each of which covers several municipalities	Implements its own program directly, through food security committees in each community

In reality, these differences are less important than it might seem. Each PVO (and the implementing NGOs) has a similar environmental and social ethos. Each PVO supervises the field-level people. For example, the municipal extensionists are closely supervised by CARE, and sometimes work out of the CARE office.

CARITAS and CRS have an excellent, long term working relationship and are in close contact with each other. The NGOs that implement SHARE's projects are the most diverse, but they are well-disposed to receiving guidance from SHARE. Each organization has strong and weak sites, depending more on the local community and the abilities of the local *técnico* than on the implementing organization.

Location. The Title II program works in 52 municipalities in eight of Guatemala's 22 Departments (Table 3.2). Pairs of DAPS overlap in four of the municipalities (marked by asterisks in the Table). The map below shows the distribution of the DAPs (one municipality shown, Panzos in Alta Verapaz, actually contains two, since part of it was recently separated to form a new municipality, Santa Catarina La Tinta.).

Table 3.2 DAP Municipalities			
Save the Children	CARE	SHARE	CRS
QUICHE	QUICHE	HUEHUETENANGO	ALTA VERAPAZ
Uspantán	San Pedro Jocopilas	Todos Santos	Cahabon
Nebaj	Santa Cruz Del Quiche *	Chiantla	Chisec
Patzité	Santo Tomas Chichicastenango	San Juan Ixcoy	Senahu
San Antonio Ilotenango		Soloma	Panzos *
Santa Cruz Del Quiche *	HUEHUETENANGO	Concepción Huista	San Pedro Carcha *
Chapul	San Andres Cuilco	Nenton	
Cotzal	San Idelfonso Ixtahuacan	San Antonio Huista	SAN MARCOS
	Tectitan	San Pedro Necta	Sibinal
		Jacaltenango	Tacana
	SOLOLA	San Mateo Ixtatan	Tajumulco
	Solola		
	San Andres Semetabaj	ALTA VERAPAZ	BAJA VERAPAZ
		Fray Bartolomé de las Casas	Cubulco *
	ALTA VERAPAZ		Granados
	Panzos *	BAJA VERAPAZ	Salama
	Santa Catarina La Tinta	Cubulco *	
	San Juan Chamelco	Rabinal	CHIQUIMULA
	San Miguel Tucuru		Camotan
	San Pedro Carcha *	SAN MARCOS	Jocotan
		Comitancillo	Olota
	SAN MARCOS		San Juan Ermita
* = Overlapping	Concepcion Tutuapa	CHIMALTENANGO	
		Tecpan	ZACAPA
		San Martin	La Unión
		Poaquil	
		Santa Apolonia	
		Comalapa	
7	14	19	16



3.3 Relation to USAID Country Plan

The Title II program is USAID/Guatemala's largest. To what extent does it respond to the Agency's Guatemala Country Plan, within the Regional Strategy for Central America and Mexico, FY 2003—FY 2008? How could this relation be strengthened?

The Country Plan is structured around three Strategic Objectives, each with a set of intermediate results:

- SO 1, More Responsive, Transparent Governance;
- SO 2, An Open, Diversified, Expanding Economy; and
- SO 3, Healthier, Better Educated People.

The activities of the four DAPs support each SO in a variety of ways, especially at the local level. There are also aspects relevant to the crosscutting objectives and emergency adaptability provisions. These relationships may not always have been recognized; nor have the DAPs and their SO counterparts at USAID established regular communication about them. In developing and implementing future Title II projects, each CS should review the country plan with an eye to strengthening the support of the food security program for relevant SOs and IRs as well as for crosscutting objectives. The following paragraphs summarize the connections. A fuller description is found in Annex H.

SO 1. One area where better coordination might have helped is that of SO 1. Despite the current priority on increasing support for more responsive, transparent governance, a number of proposals from Title II PVOs to work in that area over the years were not approved. Nonetheless, given the nature of their interventions, each of the DAPs works at the local level to strengthen participation, organization, and empowerment. Directly or in passing, they support rule of law, decentralization, transparency and accountability, and engagement of civil society in local governance processes. One PVO works directly in the democracy/governance area at the municipal level.

SO 2 While SO 2 is focused mainly on macroeconomic aspects and larger enterprises, the DAPs have promoted more open, diversified, and expanding economies at the village level among the most food insecure rural communities. This has included resolution of land conflicts; market-oriented, more entrepreneurial approaches to small-scale production; better soil and natural resource conservation/use; improved farm management and business practices; links to technology sources, upstream processors and export markets; and improved access to rural credit and financial services.

More could be done by the Title II Program to support SO 2; however, there are inherent limits. The Title II program deals largely with the poorest of the poor, living in very isolated areas, who need to focus more on basic food production/security and are not ready for international competition. Among steps to be explored are 1) expanded coverage of the DAP agricultural and income generation components, and 2) coordination with key competitiveness institutions, trade associations, the commercial banking sector, and other potential allies that can help the Title II Program address market development, creation of employment opportunities, and the challenges of CAFTA.

SO 3 The Title II program is an important contributor to the realization of USAID's SO 3: greater food security is practically synonymous with a healthier, better educated populace. Improved health, including nutrition, is the core of each DAP. Adult education for participants is fostered in areas such as health, hygiene, nutrition, organizational and administrative skills, agriculture, and income generation. The Title II program strengthens delivery of decentralized health services and the capacity of communities to interface with them. Training of community health committees and promoters, and interactions with local health service providers help assure greater transparency and better resource use. Improved, integrated management of child and maternal health is central to the DAP maternal and child health and nutrition (MCH/N) interventions, which have been standardized around the Ministry of Health's AIEPI/AINM-C methodology. These activities are specifically aimed at lowering infant mortality, raising immunization rates in children less than two, and reducing chronic malnutrition in young children—all supporting SO 3.

The already numerous links between the USAID Country Plan and the Title II program can be increased and made stronger by:

- maintaining closer communication (both ways);
- joint planning of future interventions (on both sides) to maximize synergies;
- funding activities through other USAID programs that complement the food aid program in critical ways (for instance, by finding sources of funding for micro irrigation systems, targeting municipal strengthening activities in DAP municipalities, facilitating links to export-oriented business development programs, etc.);
- working with CSs on site selection that will increase interaction with other programs;
- improving design/approving more CS democracy/governance initiatives.

Please see Annex H for further examples and details on the interactions between the USAID Country Plan and the DAPs.

4 Evaluation Results

4.1 Overall Findings

USAID's Title II Program in Guatemala—the four DAPs—has had considerable success. The TANGO team liked what it saw, learned a lot, and had a wealth of suggestions. It developed a deep appreciation for the gains made in food security, often in the face of daunting obstacles, by the dedicated field staff of each PVO and its partners. Interestingly, similarities among the PVOs were greater than the differences between them. All faced parallel challenges with similar levels of expertise, initiative, and devotion. Differences between the achievements in communities attended by the same technical team in a single municipality were sometimes greater than those between PVOs.

4.1.1 Program size and cost

Some characteristics of the four DAPs are summarized in the following Table. These reflect substantial differences between numbers of beneficiaries and other measures of program size (ranges of 400% or more). Only participating households considered direct beneficiaries in an average year by each CS are considered.

Table 4.1.a Characteristics of the DAPs					
Cooperative Sponsor (CS)	CARE	SHARE	CRS	Save the Children	
Program Name	PROMESA	Rural Development Program (PDR)	SEGAPAZ	PROMASA	Total or Weighted Average
Geographic Focus	Mainly highlands: Quiche (3 munis), Huehuetenango (3), Alta Verapaz (5), San Marcos (1), & Solola (2)	Huehuetenango (10 munis), Baja Verapaz (2), Alta Verapaz (1), and Chimaltenango (5), San Marcos (1)	Mainly Quekchi & Chorti areas: Alta Verapaz (5 munis); Baja Verapaz (3), Chiquimula (4), Zacapa (1), San Marcos (3)	Only in Quiche (7 municipalities), with a strong focus in the Ixil Area	52 highly food insecure municipalities in 8 Departments
Commodities Provided	Rice, CSB, Veg Oil, Bulgur, & CDSO	Rice, CSB, Veg Oil, Pinto Beans, & CDSO	Rice, CSB, Veg Oil, Pinto Beans, & CDSO	Rice, CSB, Veg Oil, Pinto Beans, & CDSO	
MCH/N rations (average # of monthly family rations distributed per month) *	23,507	26,182	16,373	6,200	72,262
FFW rations (average # of monthly family rations distributed per year) *	FFW not used	17,000	4,080	19,046	40,126
DAP fiscal years	2001-2006	2001-2006	2002-2006	2000-2006	
Total municipalities	14	19	16	7	52
Total communities	656	492	374	79	1,601
Average total families served per year	37,099	35,381	26,847	6200	105,527

Table 4.1.a Characteristics of the DAPs					
<i>Cooperative Sponsor (CS)</i>	CARE	SHARE	CRS	Save the Children	
% of families participating in MCH / N	68%	74%	61%	100%	70%
% in agric. / income activities	36%	12%	28%	43%	26%
% in FFW, infrastructure, democracy, or other activities	32%	14%	13%	18%	20%

* Data on numbers of rations distributed is taken by CSs in different formats (daily vs. monthly rations; individual vs. family rations). It has been standardized in the form shown.

The program value of each DAP over the life of its activity and the amounts available for investment in development activities is summarized in Table 4.1.b. The difference between the resources available to the largest and smallest DAP is on the order of 40%.

The absence of Inland Transport, Shipping and Handling (ITSH) in the budgets of all four DAPs is striking. This should be explored. The 2002 Farmbill legislation authorizes USAID to pay for internal transportation, shipping and handling (ITSH) for non-emergency programs in least developed countries, and FFP has issued new guidelines. DAPs in many countries receive it, including Honduras for instance.

Table 4.1.b Estimated LOA Program Value						
<i>Cooperative Sponsor (CS)</i>	CARE	SHARE	CRS	Save the Children	Totals	%
Total Commodity Value	\$ 18,096,400	\$ 16,371,100	\$ 11,903,840	\$ 13,799,300	\$ 60,170,640	54%
Total Ocean Freight	\$ 6,442,500	\$ 5,673,100	\$ 6,739,192	\$ 5,753,600	\$ 24,608,392	22%
Total 202e	\$ 3,244,712	\$ 2,640,000	\$ 4,262,376	\$ 3,523,967	\$ 13,671,055	12%
Total ITSH	-	-	-	-	\$ 0	0%
Carryover Amounts	-	\$ 919,082	\$ 2,478,100	-	\$ 3,397,182	3%
Other Support	\$ 2,512,564	\$ 4,747,696	\$ 1,718,930	\$ 200,609	\$ 9,179,799	8%
Total LOA Program Value	\$ 30,296,176	\$ 30,350,978	\$ 27,102,438	\$ 23,277,476	\$ 111,027,068	100%
Less costs of commodity importation & monetization	\$ (6,442,500)	\$ (6,529,749)	\$ (6,739,192)	\$ (5,753,600)	\$ (25,465,041)	-23%
Total available for development activities, LOA	\$ 23,853,676	\$ 23,821,229	\$ 20,363,246	\$ 17,523,876	\$ 85,562,027	77%

Source: amended DAPs, with figures updated by CSs.

Combining the information from the two previous tables, approximations of the annual cost per family served and the cost per family to USAID are derived in Table 4.1.c. This was calculated in two ways, using broader and narrower estimates of the number of families served. The total number of families served per year reported by each CS was used first. This includes all direct beneficiaries; however, there is a possibility that the CSs used different standards in deciding which families to include. The second calculation used the number receiving MCH/N rations, in effect the core constituency of the DAPs. This has the advantage of

reducing ambiguity in the comparison, with the disadvantage of not counting families that do not receive food rations but are provided services in other areas.

Table 4.1.c Estimated Average Annual Cost per Participating Family						
		CARE	SHARE	CRS	Save the Children	Totals
Available for development activities, LOA ¹		\$ 23,853,676	\$ 23,821,229	\$ 20,363,246	\$ 17,523,876	\$78,602,054
Number of Years ²		6	6	5	7	n/a
Average Cost per Year		\$ 3,975,613	\$ 3,970,205	\$ 4,072,649	\$ 2,503,411	\$13,361,882
Average Cost per year in USAID funds only		\$ 3,556,852	\$ 3,178,922	\$ 3,728,863	\$ 2,474,752	\$12,939,390
Average Total of Families Served/Year ²		37,099	35,381	26,847	6200	105,527
Average Annual Cost Per Family Served	Total	\$ 107	\$ 112	\$ 152	\$ 404	\$ 127
	USAID funds	\$ 96	\$ 90	\$ 139	\$ 399	\$ 116
Average number of families in MCH/N interventions ²		25,143	26,182	16,373	6,200	73,898
Average annual cost per MCH/N family	Total	\$ 158	\$ 152	\$ 249	\$ 404	\$ 197
	USAID funds	\$ 141	\$ 121	\$ 228	\$ 399	\$ 175

¹ From Table 4.1.b;

² From Table 4.1.a. The average number of families in MCH/N interventions is calculated from the percentage of MCH/N families times the total of families.

The resulting estimations of unit cost vary over a range of about 300%. Insufficient data were available to analyze the sources and correlates of the variation—to what extent differences in unit costs may correspond to distinct intensities of interventions, quality of results, difficulty of field conditions, cost-effectiveness, criteria for counting families served, or other factors. However, one obvious factor is the amount of food distributed per beneficiary. As mentioned below (Section 4.2.2), the size of the MCH/N food rations used by Save the Children is about double those of the other CSs. In addition, the amount of food distributed in FFW programs is also greater. Not only is its FFW ration size the largest, but Save the Children uses on average just over 3 monthly FFW rations per MCH/N participant per year, or 4.7 times more than SHARE and 12 times more than CRS (based on Table 4.1.a). Since food is a relatively large component of program expense, a substantial part of the unit cost differences can be attributed to this factor.

4.1.2 Program Impact

External measures of program impact will not be available until the final field surveys are done later this year. Impact of each area of activities is discussed in Sections 4.2-4.7 below. Data on the principle indicators monitored is summarized in the Indicator Performance Tracking Tables (IPTTs) included in Annexes A to D. Qualitatively, overall impact appeared to be satisfactory, as noted in response to the first question below.

4.1.3 TOR Questions

The questions posed in the Terms of Reference with respect to the overall USAID/Guatemala PL 480 Title II program provide an organizing framework to address the major findings of the evaluation. (These questions appear in italics in each of the sub-sections of this chapter.)

What has been the overall impact of the Title II program on household food security during the period of implementation? What have been the most important constraints in achieving household food security? What adjustments could be made in future programs to overcome them?

Overall impact. The evaluation team concluded that food security of the target populations was increased, based on a combination of direct observation and project-wide information provided by the PVOs. This increase appeared to be substantial in the communities visited, but probably is less so overall due to the favorably biased sample seen (Section 2.2). Quantitative assessment of this will have to await the final surveys. The sustainability of many activities was dubious, though for some it appeared to be strong. Factors taken into account for these qualitative assessments included the following:

- There is consistent if modest improvement across all DAPs in the growth of small children participating in the MCH/N interventions (Section 4.2 and data in Annex K).
- Household cleanliness and personal hygiene behaviors were improved, as shown by follow-up household visits (Section 4.2 and IPTTs in Annexes A-D).
- Agricultural, income, and infrastructure activities were generally successful, with exceptions; coverage was unfortunately quite limited (Sections 4.3 and 4.5).
- Organization, participation, and empowerment (democracy/governance) results were promising where supported, but mixed and often in need of improvement where not covered due to past USAID reluctance to underwrite such activities (Section 4.4).
- Environmental protection and compliance with Regulation 216 has improved and was generally satisfactory (Section 4.6).
- Monetization has produced the needed funding to date but improvement ought to be sought by involving more buyers, possibly different products, and more competitive processes—though these things may not be feasible in the Guatemalan context (Section 4.7.1).
- Monitoring was generally adequate; analysis of data, qualitative evaluation, and the use of this information for improved decision making could be strengthened (Section 5).

Constraints, lessons, and crosscutting issues.

- Site selection. While the DAP sites are serving highly food insecure populations, it is not always clear that the selection process targeted the most vulnerable communities available. Institutional priorities and constraints also enter into the decision making process. There is a relationship between site selection and the need for sustainability criteria, exit strategies, flexibility, and rotation of sites. (See the following question and Section 6.1.)
- Creating empowerment, not dependency. Opportunities to build self-reliance are sometimes missed. This often due to provision of solutions in a top-down style rather than building the capacity of individuals and groups to work out their own solutions (i.e., giving away a fish rather than teaching them how to fish). (Section 6.2.)
- Integration of interventions. Greater coverage and integration of the agriculture/income, and democracy/governance interventions would lead to greater impact and sustainability. (Section 6.3.)
- Better analysis and communication of results to show the impact of interventions (for example, by showing a difference between growth of children in families with and without agriculture/income interventions, or who have improved MCH/N practices to a greater or lesser extent). (Section 5.)

- Increased monetization relative to distribution of food would permit greater coverage of complementary activities essential to raising food security (e.g., agriculture/income, materials to facilitate asset and infrastructure creation, democracy/governance). The FFP strategic plan recognizes the need to mobilize more non-food resources.
- Reducing Migration. Seasonal migration to earn money during the dry season was the single largest factor undermining food security. It harms family health, nutrition, children's growth, education, and community organization. Where feasible, irrigation systems are an effective solution. (Annex F.)
- Sustainability and the need for exit strategies. Lasting food security depends on building in sustainability factors and developing post-intervention monitoring and support systems. (Section 6.4.)
- Hurricane Stan. Recovery and adjustment is well under way; but impact on food security will be felt for several years, especially in the most isolated and worst-hit places. Fewer than half of the damaged roads have been repaired. Thousands of families will most likely continue to live in temporary shelters through CY 2007. Many other families had "quick fixes" to homes, latrines, water systems and land badly damaged by Stan that may break down in the next rainy season. (Section 6.5.)
- Lessons learned in the DAPs provide a solid base for improving implementation and for future Title II proposals (Section 7 and Annex N).

Adjustments that could be made to overcome the constraints and address the issues identified are discussed in the sections referenced and in Section 7.

Are the selection criteria appropriate to identify and target the most food insecure communities and households? If not, what modifications are necessary for the criteria?

The selection criteria appeared qualitatively to be appropriate. Highly food insecure communities and households were being targeted. For instance, in the case of SHARE, appropriate municipal selection criteria are presented in the DAP proposal and community selection procedures are documented in a manual. Selection was based on both food insecurity (malnutrition, poverty, human development index, literacy) and also SHARE's experience in certain areas to ensure that program implementation would be able to start up quickly and have the most impact possible. The other PVOs use similar criteria.

Despite inquiries by the evaluation team, no census or other data was available to test the results of selection processes analytically, i.e., to show that the set of municipalities, communities, and households selected had been those with greatest food insecurity at project start-up. CSs should be prepared to demonstrate this. Anecdotal accounts indicate that in some cases communities in even greater need had been initially targeted but had not been willing to participate.

In other cases participating communities have improved their food security to a degree that would qualify them for graduation. In some cases they have been receiving food aid for well over five years. One recommendation (Section 7.4) is that such communities actually be graduated so that project resources can be shifted to new communities that are much more food insecure. If this could be done regularly enough, the Title II resources could have a much larger impact and the CSs would have more flexibility to address changes in the food security situation.

A correlation should be recognized between extremely food insecure communities and the difficulty of working with them, such that more years and more intensive interventions are required to achieve sustainable food security. The most food insecure communities tend to be those that are most isolated geographically and culturally, have little access to education and health services, and are extremely poor. These communities need more than 2-3 years to overcome their heritage of chronic food insecurity. They require an educational and cultural change process which takes time. Given that, a project design choice would have to be made between selecting highly food insecure communities that present good conditions for rapid graduation (2-3

years) and permitting resources to be shifted to new sites, or selecting even more extremely food insecure communities that require much more extended efforts to reach sustainability, if ever. One option would be to limit food distribution to a maximum of three or four years, though other interventions might continue in extremely poor communities that continue to be food insecure.

Which activities have been most successful /effective in addressing critical issues and achieving results? Which activities were not successful and why?

Please see the rest of Section 4. In overview, installing irrigation systems and other mechanisms that permit food insecure families and communities to cease their annual migrations to look for work during the dry season is the best hope for establishing lasting conditions of food security.

Are the actual indicators appropriate to monitor progress and impact, or are some adaptations necessary?

In general the indicators were appropriate. Please see the rest of Section 4 for further discussion.

What steps could be taken to better integrate the next multi-year program proposals with the USAID/Guatemala Strategy and the Stan Reconstruction Strategy

Please see Section 6.5 and Annex H on the relation of the Title II Program to USAID's Country Plan. As stated above, the recovery from Stan has progressed impressively, but much remains to be done. The impact of Stan on food security will be felt for several years, especially in the most isolated and worst-hit places. Building flexibility into the Title II program so as to facilitate rapid response to, and mitigation of, new emergencies and adaptation to evolving food security conditions should be a high priority.

Are the CSs indicators consistent with Food for Peace core indicators?

Yes. See for instance the Performance Indicator Reference Sheet on acceptable indicators for reporting nutritional status in the 2006-2010 FFP Strategy (p.94). Each of the DAPs uses indicators consistent with those listed. They are also consistent with the Millennium Development Goals (one of the MDG indicators is the prevalence of underweight in children under five). Most indicators have been developed in interaction among the PVOs and USAID.

What have been the ration distribution approaches or models CSs have implemented, both for MCH and FFW programs? How culturally appropriate are the current rations, and how can we improve them with the available commodities?

See Sections 4.2 and 4.5. In summary, the current combination of commodities and ration sizes are generally appropriate, though some adjustment to increase cost effectiveness is being considered by the PVOs. No problems with cultural appropriateness were observed; all items are readily consumed.

What are the specific activities that will help improve income, agriculture/natural resource management, maternal and child health and nutrition, and municipal and community strengthening, in light of the damage caused by Hurricane Stan.

Please see the corresponding sub-sections—4.2, 4.3, 4.4, 7, and 8—on improvements recommended. The facilitation of community and municipal risk management plans is relevant to all these areas.

4.2 Maternal and Child Health and Nutrition

The CSs have invested considerable effort in implementing the maternal and child health and nutrition activities. While the impact cannot be fully assessed until the quantitative surveys are conducted in July or August, they are to be commended for their effort in adopting and implementing the AINM-C package, in reaching large target populations with uniform messages, and with careful management of food resources.

4.2.1 Impact

All of the CSs have data on the two key indicators of chronic malnutrition (height for age or stunting) and global malnutrition (weight for age). That which was available at the time of this evaluation is presented in Annex K. Summaries of indicator tracking data reported to USAID are found in Annexes A-D (IPTTs). CARE and CRS measured height for age at the baseline and mid-term and will measure again during the final quantitative evaluation in July. SHARE measures both indicators annually; Save the Children also measures them each semester. The data in the annex shows that there has been some impact on nutritional status, more so in some municipalities than in others. Nutritional status may have improved more in some areas with stronger local economies.

A difficulty in assessing impact from the available data, is that mid-way through the program, the PVOs switched to the AIEPI/AINM-C method of monthly monitoring of expected weight gain rather than percentiles on the growth curve. Both are based on weight for age, but the data is reported very differently. Two of the PVOs have tracked by both methods, but the other two have not. This means that the monthly data collected now by the latter cannot be compared with that collected in the first two years of the project.

Impact is also complicated by the newness of some areas and the history of others. CRS and SHARE adopted new target areas mid-way through the DAP (encouraged by USAID), taking on municipalities which had very high rates of malnutrition due to the coffee crisis. This made their indicators move in the wrong directions. Also, each CS targets some areas that bear the psychosocial scars of the worst of the violence and the effects of years of isolation. An example is Save the Children's work in the Ixil area of Quiché, isolated for two decades by political unrest. Such places lag behind much of the rest of the country in economic growth, education, infrastructure, local organization, and other factors.

Are the indicators adequate?

In their project design, each CS proposed various indicators to measure behavior change. These were measured at baseline and mid-term and will be measured again in the final survey. The indicators referring to feeding, breastfeeding, and illness are more relevant to improved biological utilization of food than are the indicators of prenatal care or knowledge. Indicators focusing on prevention of diarrhea and dehydration from diarrhea would be more appropriate than indicators on treating diarrhea. The indicator of CRS and CARE on point prevalence of diarrhea is particularly relevant to measuring not only impact of hygiene education but also the impact of water and sanitation activities. Results from these indicators will not be available until the end of the program.

4.2.2 Other accomplishments:

Evidence of improved household health and nutrition practices among the program beneficiaries

An accomplishment of the programs is the improved hygiene in the households of project participants. This was documented by observations in visits to participating households compared to non-participating

households. It was notable even in communities which lack sufficient or piped water. This improvement, coupled with the observed adoption of water purification and improved water storage, should lead to a reduced prevalence of gastro-intestinal illness. Both families and health workers informally reported less diarrhea illnesses. The health workers also reported that diarrhea is being better managed at home as they are seeing fewer cases of dehydration. No specific data was available for this evaluation.

CRS has actively promoted water purification, using chlorine or solar purification with the SODIS method (see text box), which was observed during household visits to be widely practiced.

Other behaviors, particularly those related to nutrition, could be assessed only subjectively during this evaluation. Participating mothers have learned many messages and could repeat them, but may not always adopt the new practices. They internalized messages on hygiene far more than any others. Knowledge of breastfeeding and child feeding was weak, not only among mothers, but also among the community health workers (CHWs) who are supposed to be teaching them. This will be further assessed by the quantitative survey to be conducted by the CSs late in the program.

An accomplishment of the Title II program was to standardize the community health component of the four CSs through adoption of the national strategy known as AIEPI/AINM-C (integrated maternal child attention, hereafter referred to as AINM-C). It was held up initially by central government delays, but most of the CSs used AINM-C by 2003. As shown in the chart below, CS staff, collaborating NGO staff, and MSPAS staff received training in the approach through project funds.

CARE, which partners directly with the Ministry of Health and Social Assistance (MSPAS) and its NGO contractors for SIAS (see Annex G) has used project funds to train government and contractor staff. While the others have applied AINM-C only in their own programs, this activity serves as a model for government health services to follow and provides lessons learned to both the MSPAS as they now scale up and to the USAID bi-lateral project *Calidad en Salud*, which has the mandate of providing technical assistance to the government.

Safe Water from Sunlight : SODIS
 Impure water left in the sun all day in clear plastic bottles—an appropriate technology that purifies water and helps reduce gastro-intestinal infections, thus improving household food security.



An alliance with the SODIS Foundation allows CRS to field test and promote this simple, effective idea, with funds contributed by both. In some places where CRS has been promoting the method for only two years, families outside the project have begun to use this method, showing good horizontal replication (diffusion) of the improved practice.

Persons Trained through the Title II Program

	<i>Clinical IMCI</i>		<i>AIEPI/AINM-C</i>		
	<i>MSPAS</i>	<i>SIAS</i>	<i>CS or Partner Staff</i>	<i>MSPAS</i>	<i>SIAS</i>
CARE	14 Districts *	15	28	14 districts **	2090
CRS	20	3	33	50	7
Save the Children	0	0	14	0	0
SHARE	0	0	58	0	562 CHWs
			1,125 CHWs ***		

*All physicians, nurses, and auxiliary nurses.

**includes Institutional Facilitators, Rural Health Technicians

***half of SHARE's CHWs are also serving as SIAS *vigilantes*.

Appropriateness in the use of food rations

The program has been successful in achieving appropriate ration content and ration use. The families interviewed are all happy with the ration mix and did not value one commodity more or less than others even when presented with forced-choice questions. The families eat the food, with small children getting the most CSB, as is desirable. The CSs have done a good job of demonstrating appropriate, culturally acceptable preparation methods for not only CSB, and for bulgur, which is not common in Guatemala.

Counter-intuitively, the size of the ration does not correlate to improvements in child nutritional status (the CSs offer family and FFW rations of different amounts). In Quiché, where one PVO's rations are almost double the size of those used elsewhere, but other program activities are similar, nutritional status is on par or lower than in other target areas. This suggests that other factors like improved health and nutrition practices may be more critical to nutritional status than is the amount of food donated, and that the main function of MCH/N food distribution may be as an incentive to engage food insecure mothers and families in the training and behavior change activities.

All four CSs rely on community or NGO partners for commodity distribution. This works well. Community committees have clear understanding of their role, responsibly execute their duties and feel a sense of accomplishment while they are also gaining experience in administration. The local storage facilities visited were all in good order and clean. SHARE's community groups have contributed time and resources to the project by providing "monitoring centers" for growth monitoring, many times in the home of the promoter, and to improve the quality of the monitoring center for privacy so that they are enclosed and adequate for undressing the infants. In CARE's target areas, communities also have contributed time and resources to build good facilities, which will serve them for this and other purposes in the future. Each CS encourages the committees or NGO to charge a small 'contribution' which goes to cover local transport, bags for distribution, storage room maintenance, modest stipends for those who do the weighing of rations, etc. Save the Children and SHARE devote part of the contribution to stipends for the local health workers and CARE applies some as incentives to the community members who handle the food distribution. When there are extra funds, the communities may use them for community health projects.

SHARE has separated growth monitoring from food distribution. Each interest group selects a board of directors that leads food distribution. Groups also elect their promoter democratically, rather than being assigned the SIAS vigilante. This is important for building trust with the group and forming a psychological contract. Each group has the capacity to "hire" or "fire" their promoter. The board of directors leads the process of creating a vision and mission for each group.

Community participation in health activities

Since target communities were selected after DAP approval, the current communities did not necessarily have input into design of the health intervention. CRS, CARE, and SHARE did solicit input from similar communities for DAP development. Target communities all formed health committees and, sometimes, separate food distribution and growth monitoring committees. In most cases, the committees see themselves as having concrete tasks in the program, but do not have a role in planning major activities. CARE has done more to empower the health committees and directly link them with the COCODES. In these cases, they have developed emergency transport plans, emergency medical loan funds, solicitations for funding water or latrine projects, or have gone to MSPAS officials to request an extension of coverage of the local health provider. Few of the other health committees started activities on their own. While some have participated in analysis of local health problems, the plans they made with project staff did not necessarily address the problems they identified. Most committees simply serve a supporting role to activities planned and implemented by the CS.

Most community groups are not being taught or helped to analyze local health data such as the monthly growth monitoring results. Neither the groups nor community health workers thought to do a case-by-case analysis of growth-faltering children. Community goal-setting and monitoring could be strengthened.

Health and nutrition education

SHARE and CRS introduced their partners to the concepts of adult participatory learning or popular education. Save the Children has also used them. In some communities, this greatly enhanced the quality of education, even though CHWs conduct the sessions with large groups. Save the Children implements nutritional schools, a form of active learning for participating families who have underweight children, but results have been mixed. Save the Children also offers group sessions for all women participants, sometimes involving MSPAS staff. In most CRS sites, group sessions are the norm; home visits are also carried out. CARE and SHARE now offer a combination of educational sessions and individual counseling. Only SHARE successfully established a schedule for weighing and counseling that allows adequate quiet time for individual counseling.

Variations in quality of group sessions and individual counseling are evident between communities more so than between CSs. There is room to teach partners and MSPAS staff better educational methods and strengthen counseling skills of CHWs. Mothers said they like the educational sessions, but more effort is needed to move beyond information dissemination to facilitate behavior change.

The educational sessions and counseling usually target only mothers. There was little evidence of reaching fathers, grandmothers, or non-participant families with the messages. More emphasis on self-replicating person-to-person learning processes should be considered. Where CARE is working with an INGO partner in Alta Verapaz, the health committees have been trained in all key messages and encouraged to share what they learned with all members of the community. SHARE has an innovative mass communication strategy using the radio to educate the population as a whole regarding all aspects of food security, through its *Voz del Campo* radio program in Baja Verapaz; these short radio spots are heard throughout SHARE's target area.

Some of the CSs use volunteer CHWs to conduct growth monitoring, but rely on paid staff to do the counseling and educational sessions. Paid staff covers up to ten communities and are only in any particular community a few days a month to coincide with growth monitoring and food distribution. This may assure better counseling and education, but the program will not be leaving behind trained resource people in each community. In contrast, SHARE trains community promoters to do the health counseling. Quality may be mixed, but the goal is to leave behind a trained health promoter in each community where the program works. Even though they will no longer be receiving incentives or supervision, such resource persons often continue in a proactive health promotion role, or are sought out by friends and relatives for health advice.

Coordination with the MSPAS at the local level

MSPAS staff in all districts expressed appreciation of the program. They stressed its role in increasing immunization coverage, and in some cases, pre-natal coverage. In most communities, the food distribution is coordinated to coincide with visits by SIAS mobile teams or outreach teams from the health center, who bring vaccines and micronutrients to program participants. In some districts, the food is stored or distributed from a building next to the health center or health post, a sign of coordination.

However, in communities of CRS, SHARE and Save the Children, there is little or no link between the health facilities or SIAS contractors and the program CHWs and health committees. In some cases where the health facility staff was aware of the CHWs, they had not thought of contacting or taking advantage of these trained resource persons in the future.

Some CHWs of the CSs happen to be volunteers or vigilantes of MSPAS or SIAS, but in many cases, they are a duplicate structure. For instance, half of SHARE's promoters are also SIAS vigilantes, which has strengthened SIAS through additional training of these vigilantes. The other 50% represent a parallel structure, due to the choice of promoters by SHARE's participants. SHARE's strategy of having groups select their own volunteer and replace ones who are not performing does give the program participants control over the quality of CHWs. Where the two structures overlap, coordination sometimes includes jointly conducting growth monitoring and education sessions. In some communities, the CHWs or committees weigh program children, while on another day, MSPAS vigilantes either re-weigh them or weigh only non-program children, including older children of program participants. Sometimes, MSPAS or SIAS vigilantes copy the DAP growth monitoring data to turn in with their reports.

CARE coordinates actively with the MSPAS at local levels because it considers the MSPAS and the SIAS contractors as partners in implementation with a goal of building their capacity and forming strong links between communities and the health system. The results of this close partnership are evident. There is no duplication; rather the vigilantes are fully engaged in growth monitoring for the program and the rest of the population, have been trained and supervised by CARE jointly with the MSPAS or SIAS contractor, and continue to respond to the health system. The district health staff refers to the health committees as their own and has plans for follow-up after the CARE project ends. CARE is included in district health meetings to discuss the data (*ala situacional*) and to plan on-going and new activities.

To engage some of the municipalities in health, CARE provided some funding to create positions of municipal health educators and facilitators. While they have been effective in outreach activities and in supporting the work of the health districts, it is unlikely that the municipalities will come up with funds to pay their salaries. At the very least, their presence in the municipal offices has raised more awareness of health needs and potential actions.

In Cuilco, district health director Dr. Giovanni Castillo says, "CARE is our right hand. Two heads always think better than one." When PAHO and the *Calidad en Salud* Project came to visit, they were amazed to find organized and empowered health committees in the communities, which Dr. Giovanni attributes to CARE, but proudly calls *his* committees. Due to this solid base, OPS and *Calidad* decided to create a model for Integrated Maternal and Child Care (CAIMI) at the Cuilco Health Center. With CARE's help with community organization and education, Dr. Giovanni estimates that in 2005 the lives of 33 women who otherwise would have died of obstetric complications were saved. Timely referral, community emergency transport, and the CAIMI facility made this possible, a result of the joint efforts by the health district, PAHO, *Calidad*, and CARE.

CRS works most closely with MSPAS in Chiquimula, where they have conducted joint trainings and CRS has paid for training and materials of MSPAS staff. CRS utilized the national training team for AIEPI/AINM-C of MSPAS to train their staff and partner staff. It is important to note that in all project areas CRS is building the capacity of Caritas, which is possibly the second largest provider of social services in Guatemala after the government. The evaluation team was unable to visit Chisec due to time constraints, where Caritas, with technical support from CRS through Title II, has a SIAS contract. From the reports of CRS, this seems to be going very well and may serve as a model for Caritas to undertake more SIAS contracts in other areas.

4.2.3 Special concerns

Coordination with the Ministry

All of the CSs have participated in the IEC Collaborative Group of the Ministry. They have good intentions to follow MSPAS policies and protocols. They felt frustrated when the MSPAS put the AIEPI/AINM-C

program on hold for nearly a year—precious time lost in the five-year projects. The CSs also had to adjust to and re-orient completely new staff at the area and sometimes district levels after massive turnovers in the MSPAS staff due to the national elections midway through the project cycle.

There is reason to be concerned about the lack explicit intent by some of the CSs to strengthen the MSPAS service provision and community outreach at the community level. The CSs are missing an opportunity to build the capacity of the health services on which program participants and the development of sustainable food security depend. For instance, the evaluation team found problems of MSPAS personnel giving different messages to mothers than the program is promoting. In four communities pertaining to four different health areas, health center staff (either observed by the team or reported by mothers) was telling mothers of children less than six months old to give additional fluids besides breast milk, which contradicts the message of exclusive breastfeeding. The CSs can either provide more in-depth training to the MSPAS and SIAS staff, or engage them in co-training the CHWs with the CS providing the content and reinforcing training skills, including use of adult learning principles.

MSPAS staff and SIAS contractors usually appreciate training for themselves and support which helps them achieve their goals (i.e. better coverage rates) or helps them gain acclaim from their superiors or peers. Sometimes, training opportunities and attention from CS staff are enough to foster improved attitudes and better quality service delivery. On the other hand, it is understandable that, ethically, the CSs may not wish to collaborate with corrupt district officials or NGO contractors in places where such problems have arisen.

Overlap with the USAID bi-lateral project Calidad en Salud

All of the CSs have very good relations with *Calidad* and have coordinated on materials and diffusion of AIEPI/AINM-C. USAID should seriously consider authorizing explicit support from *Calidad* to the CSs.

Where there is geographic overlap between target areas of *Calidad* and the Title II program in CARE sites, there is good synergy. *Calidad* provides occasional, specific technical assistance at the district level, but it is not on the ground. CARE provides the day-to-day follow up at the district level and facilitates, through funding and supervision, the implementation at the community level by SIAS and the district staff. The evaluation team saw a dramatic contrast in level and quality of implementation between districts CARE supports and another where *Calidad* works alone. Although there may be overlap of *Calidad* and other CS target areas, there is no issue of duplication, since the other CSs are working outside the MSPAS system. They can coordinate with *Calidad* on technical fronts, like exchange of information and development of materials and workshops, as does CRS, for example. As mentioned above, their application of AIEPI - AINM-C at the community level serves as a model for the MSPAS. If these health districts eventually adopt the strategy, they will have the advantage of relying on the CHWs already trained by the CSs.

Coordination between the CSs

On the technical side, there is little evidence that the CSs collaborate either informally or systematically. Staff participating in the evaluation was mostly unaware of how other CSs worked, leading the evaluation team to conclude that there had not been enough exchange of approaches, best practices, etc. Three of the CSs each created recipe books. All created different educational materials on the same themes. Level of effort and costs could have been minimized by collaborating on materials development, creation of training plans, and the like. Joint trainings, such as those recently facilitated by FANTA, will help build rapport among the technical staff. Regular cross-visits to share best practices and lessons-learned would also be helpful.

Dependency

Food donations are aimed at improving the well-being of families by providing energy and nutrients as well as freeing up family resources to buy other, hopefully, nutritious food. But neither participants nor the food distribution committees had calculated the value of the food rations, which are worth from Q. 100 to Q. 200 per month. Even having seen the benefit of commodities like oil and CSB in improving their nutritional status, families said they would not continue to buy the same amounts of equivalent foods on their own once the program ends. Everyone interviewed wants to continue getting as much or more food indefinitely.

Of more concern is the overwhelming response by participants that they would most likely not continue to participate in growth monitoring nor health education once the food incentive is withdrawn. (All CSs currently require participation in growth monitoring and health education in order to receive the monthly ration.) Most but not all CHWs are willing to continue weighing and giving educational sessions on a voluntary basis, but they have doubts that the women would attend. This finding presents a real challenge to the CSs to come up with ways of motivating families to be truly concerned about health and nutrition status. Technical support may be needed from FANTA to address this.

4.2.4 Conclusions

Food distribution was uniformly good across all the CSs. Community members gained experience managing the distribution and the food is appreciated and eaten by the families. Food is the main incentive for participation in growth monitoring and health activities. Distributing family-sized rations helps assure that more of the food gets to the child compared to giving only child rations which are ultimately shared with the whole family. The other advantage of family rations is that they conceivably free up cash otherwise used to buy staples like beans, rice and oil, which can then be spent on nutrient-dense foods such as fruits, eggs and meat.

As mentioned above, there is little relationship between ration size and reduction of child malnutrition. There is a limit to how much a child can eat, so targeting more food only to the child is not realistic. This finding also highlights the need for education on feeding behaviors and biological utilization.

The CSs have all invested considerable effort in adopting and implementing the AIEPI/AINM-C strategy, which provides a uniform package of activities and messages. The MSPAS and *Calidad* Project can learn from these models, which will help with national expansion of the strategy

Quality of the maternal child health package AIEPI / AINM-C varies by CS and by partner. Where weaknesses were observed, such as in counseling and recording weights, they were due to inadequate support and supervision. CSs need to reinforce technical, training, and supervision skills of regional and partner staff. CSs should review USAID's technical reference materials (www.childsurvival.com) to assure technical consistency of content and approaches with world norms.

Due mostly to project design and to content of the AINM-C modules, projects have paid insufficient attention to breastfeeding and complementary feeding practices. Improvements in these practices can lead to as much as a 45% reduction in chronic malnutrition. The existing practices vary by region and ethnic group, but none of the CSs defined the local practices in order to adapt the AINM-C counseling appropriately. Community-level workers tend to attribute weight loss to illness and longer-term growth faltering to the mother's inadequate care of the child. Both of these suppositions are unfortunate and hinder defining and dealing with the actual causes of malnutrition. For their own learning, CS staff needs to conduct rapid, qualitative studies of breastfeeding and complementary feeding practices, deepen the training of CHWs, and adopt a strategy that will lead to behavior changes in breastfeeding and complementary feeding practices.

This should be based on WHO/PAHO's *Guiding Principles for Complementary Feeding of the Breastfed Child*. It would be ideal if *Calidad* could provide technical support to the CSs to develop IEC-CC strategies and support the strengthening of the AIEPI/AINM-C application.

Other additional issues affect food security. As noted above, seasonal migration to pick coffee is detrimental to child health and nutrition. Growth records show that children who migrated when 'growing well' returned with weight loss (see Annex F.) Alcohol abuse also diverts family resources and undermines the health of many adults. Donors and PVOs concerned about health and food security may want to consider the impact of the latter when designing new programs.

Staffing at the field level presented challenges. There is much rotation, including among CHWs, who leave communities to take other jobs. This is a loss of investment in training and the replacements frequently do not receive adequate training. Additionally, many lowest-level paid field staff (extensionists, facilitators) is not from similar communities, and some do not even speak the local language. Considering the rise in education levels in rural areas, local people should be given preference in hiring, rather than importing urbanites. Seeking and hiring staff in the Departments also promotes local economic development and provides role models for indigenous youngsters.

Overall, the CSs have been diligent in implementing maternal-child health and nutrition activities. They all adopted AIEPI/AINM-C and have trained many community-level personnel. Each CS has applied important innovations or best practices as described in the sections above. The results of the quantitative surveys to be conducted in the last months of the program will further attest to the impact of these efforts.

4.3 Income Generation, Agriculture, and Natural Resources

The project supports several kinds of agricultural and income generating activities (and a few on forestry). Most of the income generating activities are with crops or animals. To avoid repetition we discuss them all in a single chapter. At the end of the report (Annex J) there are some boxes with one-page 'cameo' descriptions of the activities. The cameos flesh out the slightly abstract descriptions in this section.

Most of the activities are quite good; they are based on products the local people already have experience with, but extensionists teach them appropriate technologies for improving them (often with modest capital investments). Most of the income generation is with farm produce, and much of it is for local markets, which are easy for local people to access. All of the PVOs use some version of the group and promoter model described by Bunch (1982).

SHARE works with 'interest groups' of local people who are organized to receive training and materials for a specific income-earning activity. The people repay 25% of their loan, besides providing the labor and local materials. This helps the group assume ownership of the activity. The amounts repaid go into a revolving credit fund managed by the interest group. See Boxes J.1-J.3, J.9-J.11, J.23-J.25 and J.33. CARE uses a slightly different approach: loans of materials to agricultural group members that are turned into a revolving fund to which participants repay the full value of materials received. The fund is run by the group to provide loans to members for productive projects. Both the SHARE and CARE participants learn to manage a small credit portfolio while building up a modest fund which they can invest in the future. See Boxes J.12-J.16, J.26, J.27, J.32. CRS and Save the Children use similar approaches, although CRS also tends to use food for work to encourage people to adopt certain agricultural practices, like compost and gardening. See Boxes J.4-J.8, J.28-J.31. CRS, SHARE, and Save the Children facilitate access by some participants to micro credit (see Section 4.3.5).

Most of the PVOs use groups for training and for some large items (like greenhouses for vegetable seedlings), but most of the actual production is done by individual families. This is a good strategy. Smallholders prefer to work and take decisions at the household level. They choose to work as a community only with resources too large for a single family to handle, such as a large irrigation system, grazing lands or forests (Netting 1993).

Table 4.3 Impact, style

	CARE	SHARE	CRS	Save the Children
Style	Works through groups, each of which has a promoter. Projects supported with credit in form of needed materials. Households repay loans in full to create a rotating fund, which stays in the community	Works through 'interest groups' who must repay 25% of cost of local materials to create rotating fund, besides supplying non-local materials and labor. Assumes farmers know how to produce food for consumption and focuses on income generation.	Groups have a promoter, and manage a small fund as a group. They are tied to FFW (e.g. making compost, gardening, reforestation). Links to micro credit through FONDESOL.	Promoter and groups, but the emphasis is on food production, by the family for the family. Links to micro credit for women via Genesis Empresarial
Impact	High value horticulture, livestock. Market oriented	High value horticulture, livestock, and crafts. Market oriented	Uneven. Some groups are excellent, with varied productive activities (e.g. market vegetables, forestry, string beans for export). Others are make work to justify FFW.	Appropriate emphasis on food for families, not really income oriented.

4.3.1 Supply vs. demand

Are income generating activities based on supply or demand?

The good activities are based on both: a good ability to supply the product and strong market demand for it. They help local people improve something they already produce, which is in demand. A few of the products are exported (especially coffee), but many are sold locally, for example fresh eggs, hens, vegetables (see Annex J). The weavers of Aj Kem (Box J.2) are doing market studies to see what their public wants. Even though Guatemala has a weaving tradition, most of the women we interviewed said they learned much about weaving through project training. The women are weaving things that urban consumers want, like place mats, cushions, and cell phone cases, which were not part of the rural repertoire (see Box J.24). Even groups that sell 'traditional' products like coffee have worked hard to add value, e.g. the coffee cooperative in Chiyó now washes and dries its coffee so it can sell it in parchment, rather than as cherry coffee. They have also made ties with an exporter, to avoid the middlemen (see Box J.15).



Some groups have no problem with demand. The edible *loroco* flower (*Fernaldia pandurata*) sells easily at local fairs and markets (J.10), especially with off-season irrigated produce. Native chicks sell out the day they appear on the market (Box J.11). The items that are the easiest to sell are those for local markets. Few groups complained of marketing problems. Aj Kem would like to sell more of their fine weavings; SHARE and ASOQUADE have helped them produce a catalog on CD, with professional photographs, in English, Spanish and French (Box J.2), but other weavers said their market demand was strong (see Box J.9).

There are a few products which local people have little or no previous experience with, for which there is little market demand. The new product can be a success as long as the local extensionist knows it well and helps market it. Tilapia is one new product which seems economically successful (see Box J.5 and Box J.13). Oyster mushrooms (*Pleurotus ostreatus*) have been less successful, because the extensionist who knew about them and the markets for them left the project (Box J.33).

Table 4.3.1 Supply and demand of products produced with project aid

<i>Products</i>	<i>Previously supplied by communities</i>	<i>Demand</i>
Coffee	Yes	local and export
Cardamom	Yes	local and export
Tilapia	No	some local demand for fish, not specifically for tilapia
Chicken	Yes	strong local demand
Chicks	Yes	strong local demand
Eggs	Yes	strong local demand
Honey	Yes	strong local demand
Pigs	Yes	yes
<i>melocotón</i> (peach)	Yes	yes
Loroco	Yes	strong local demand
Tomatoes	Yes	strong local demand
Forestry (trees)	No	trees planted in the communities themselves
Mushrooms	No	no
string bean	No	export
Vegetables	Yes	strong local demand
Compost	No	used by households
goat milk	perhaps some	used by households

4.3.2 Non-farm activities

Have CSs begun to evaluate and/or implement non-farm production activities?

The non-farm production (in the groups) is mostly weaving. There are several weaving projects, almost entirely made up of women. They are enthusiastic about weaving; they enjoy it, they can do it near or around the home, and it is flexible enough to fit into their busy days. See Boxes J.2, J.9, J.14, J.24.

The activities with small animals (bees, hens, fish) take up little space, and are almost 'farms without land'. Strictly speaking they are agricultural, but they may be an economic option for rural people with little or no land. See Boxes J.3, J.11, J.16, J.22, J.26, J.31, for example.

Table 4.3.2 Non-farm IGAs

<i>CARE</i>	<i>SHARE</i>	<i>CRS</i>	<i>Save the Children</i>
Weaving in Chiyó	Weavers of Aj Kem Flor de Algodón Dulce Hogar	No non-farm activities seen	Mujeres Victoriosas de Acul (credit through Génesis Empresarial)

4.3.3 Impact of agricultural programs

What have been the impact/results/achievements of agricultural/natural resource management and technology transfer in terms of increasing food production, conserving natural resources, and improving food security?

The CSs have an impressive set of appropriate technologies, as shown in the table below.

Table 4.3.3 Major agricultural technologies

<i>CARE</i>	<i>SHARE</i>	<i>CRS</i>	<i>Save the Children</i>
New coffee dryers with screen mesh and plastic roofs	pig raising	Compost	eggs to eat at home
low water use in coffee pulping	commercial eggs and for household consumption	group gardens	home gardens
coffee pulp as organic fertilizer	loroco	red tilapia	drip irrigation
organic coffee (certified)	chicks	string beans	soil conservation
coffee marketing through cooperatives	tomato & pepper greenhouses	micro irrigation	goat milk
cardamom, marketing through cooperatives	forestry	commercial vegetables	maize dryers
soil conservation techniques	mushrooms	coffee growing, post-harvest	corn cribs
ecologically sound pest management	chicken	tree nurseries	commercial home gardens
tilapia	bees and honey	contour furrows	black bush beans
chicken	lettuce	melocotones	compost
Jamaica flower drying	drip irrigation	jalapeño chillies	grain bins
varieties of Jamaica flower	soil conservation	sweet potatoes	mass selection of maize
bees and honey	sheep	manioc	reforestation with pine trees
pigs, sheep, chickens	vegetables for sale and home use	poultry	
coffee growing	cinnamon	rabbits	
tomatoes	bananas		
vegetables	achiote		
forestry	compost		
mushrooms	contour furrows		
grain bins	tree nurseries		
fruit tree culture			

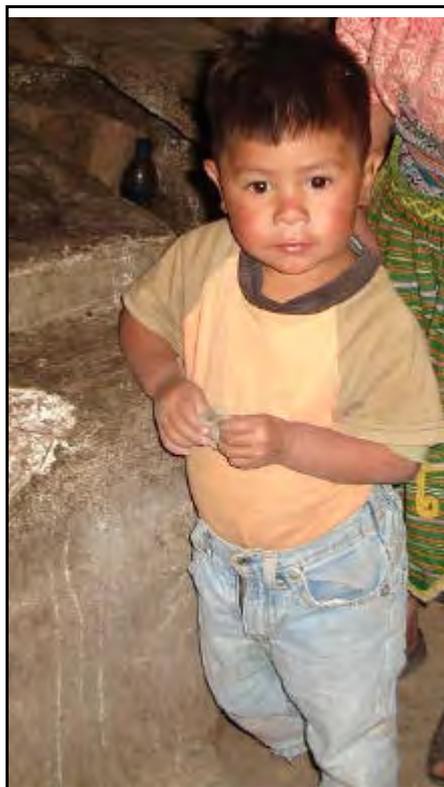
The CSs have different styles. SHARE's encourages market products (although most of these are food products for local markets). Rather than focus on improving subsistence farming, SHARE assumes that most farmers know that well enough and emphasizes income generation. Even their forestry project, which was inherited from earlier projects for local reforestation, is starting to sell some seedlings (see Box J.25). SHARE's groups produce as groups, even though some of the products (e.g. day-old chicks, Box J11) could be managed by individual households. This is not to suggest that there is a problem with group production and sales, but merely to suggest that individual production would be a viable alternative.

CARE's activities are also market oriented, but are more geared towards household production. The groups are for training, but people produce on their own farms. Some of these ideas are very good. The simple screens-and-covers for sun drying coffee work well and make better coffee, allowing the people to sell their coffee beans for a higher price. See box J.12 coffee dryers.

CRS uses FFW (food for work) to encourage people to do agricultural projects. The results have been mixed, but the advantage is that the food can be used to attract people to try a technology they might otherwise not want to. Some of their activities are labor-intensive, with low capital investment, e.g. making compost pits or tree nurseries, or group gardens, which absorb labor for work-for-food programs (see Box J.6). But other programs are specifically commercial: tilapia, string beans, coffee. The better CRS activities include commercial vegetables, and improve local technologies while making modest capital investments (Box J.28, Box J.8). Make-work with no capital investment is less likely to increase incomes.

Save the Children has the most creative approach, training local promoters (called 'agro-environmental guides') in each project community. The guides learn project technology (e.g. chicken coops) and install them on their own small farms, and teach other people about them. Save the Children targets families with children under three, especially if the children are under weight. Representatives from the families meet with the guide and decide which ones should receive a household project (e.g. a milk goat). Some of these small projects require chicken wire, cement or other 'capital items', which Save the Children gives them. The family repays part of the cost (usually 25%) into a community fund and provides the labor and the local material (e.g. wood). Some of these household projects (wood stoves, latrines) are mentioned under infrastructure (Section 4.5), but most of them are agricultural.

Save the Children helps families grow food to eat at home, e.g. three or four eggs a day, goat milk for mal-nourished toddlers (Box J.17, J.19), fresh vegetables (some grown with drip irrigation—Box J.21). Maize dryers, corn cribs, and grain bins keep rats, weevils and fungi out of stored maize, so the family can store maize when it is cheap (at harvest) and still have some when maize prices rise (Box J.20). Bush beans allow people to have more black beans to eat with their tortillas. Compost is used to raise more food, especially in garden vegetables.



Juan Carlos was underweight, until he started drinking goat's milk from an initiative by Save the Children. See Box J.17

Some of Save the Children's technologies are partially market oriented (especially some of the gardens). And if a household had a surplus of maize theoretically they could save it in the grain bin for six months and then sell it when prices have doubled.

It is an impressive list of innovations. Even though adoption has been stimulated by help from Save the Children, the families are actually using the innovations and like them. The corn cribs are full of corn; the gardens grow produce for market and for the families to eat. The many chicken coops we saw all had the 'lived-in' look. The hens had not simply been rounded up and caged for us to see, but were living in the coops, and laying eggs.

The new bush beans are a major agricultural change that has been promoted by Save the Children. Families in Quiché have planted black beans with maize for years. The beans climb the corn stalks and take about eight months to reach maturity. The new varieties are bush beans, planted apart from the maize, in separate plots. They are faster-growing, reaching maturity in just three or four months. The families are delighted with these beans, which allow them to raise more protein-rich food. They now grow both kinds of black beans, the climbing beans and the bush beans. Beans and maize together are, of course, the ancient Meso-American combination, providing all eight of the essential amino acids.

Some families in Save the Children's project area who are not in the agricultural project (e.g. because they do not have small children) are copying the innovations on their own (Box J.18 sincerest flattery). This is the best evidence that the innovations will still be used in the Quiché after the project leaves.

A few project technologies are probably not profitable. For example the Japanese-style fertilizer bokashi requires too many purchased inputs. The earthworms may help make nice fertilizer, but the wooden boxes are expensive, and are time-consuming to load and empty. Organic matter is very good for the soil, but manipulating it needs to be as cheap and easy as possible.

4.3.4 Overview of agriculture in numbers

TANGO asked each PVO for data describing impact and activities at the community level. Each PVO collects and reports the data in its own way, which makes it fairly difficult to assess results in a uniform manner. Even so, the following abstract of the numbers show some of the project's accomplishments.

CARE works with 13,559 families in 338 communities, with soil conservation (live barriers, compost etc.) and other farm activities, managing a total current investment portfolio of Q. 2,074,811 (\$276,641, i.e. \$818 per community, or \$20 per household, which is a small amount but perhaps an appropriate average for very low income families). They report three or four activities per community; in reality they probably do many more, based on the many activities seen in the field.

CARE does a good job promoting some of the more promising activities, e.g. vegetables, and poultry, while also working on some interesting ones (e.g. flowers), which could be models for the future. There is an appropriate emphasis on basic foodstuffs, but perhaps more could be done with grain storage (grain bins, for example).

See the following table for number of beneficiaries, communities (based on Table 4.1.a).

	CARE	SHARE	CRS	SAVE	Totals
Municipalities	14	19	16	7	52
Communities (total)	656	492	374	79	1,601
Households per year (total)	37,099	35,381	26,847	6200	105,527
Households in income & agricultural activities	13,359	4,246	7,426	2,666	27,693

SHARE has an interesting mix of activities, including many which are not common in the DAPs (e.g. fishing, honey, flowers, textiles, and bakery). SHARE works with 4,200 beneficiaries (68% women and 32% men) in 208 interest groups. They report average profitability of project groups between 40-50%. Sales are unevenly distributed, but most groups have sales in the four figures (i.e. Q. 1,000 and 9,000, several hundred dollars). Average sales per beneficiary were Q. 859

Table 4.3.4.a Activities with CARE

Activity	Communities
soil conservation	57
grains & other food crops	46
grain bins	1
improved corn cribs	2
vegetables	64
Fruit	14
Poultry	46
Goats	7
Sheep	1
Cattle	1
Forestry	7
Coffee	4
Honey	1
Flowers	3
Cinnamon	1
sugar cane	1
Cardamom	1
Maguey	1

Table 4.3.4.c Activities with SHARE

Activity	Groups
vegetables	39
Egg production	19
poultry for meat	44
Fishing	2
Honey	5
flowers	2
textiles	14
bakery	2
mushrooms	2
Tree nurseries	8
pigs	18
Sheep	16
Animal vaccination and health kits	6
Fruit	11
Goats	1
greenhouses	6
cattle	4
Micro irrigation	5
Loroco flower	3
Corn mill	1
Total groups	208

(\$115). These are gross sales, not profit, but most of the groups seem to make enough money to keep their members interested.

CRS works in 241 communities, especially with low-cost, labor-intensive activities, e.g. soil conservation. Soil conservation is valuable, but encouraging people to adopt it with FFW may not be most appropriate. CRS promoted some grain bins and improved corn cribs. CRS is a leader in several technologies which other PVOs should notice—for example, trees (fruit, forestry, agro-forestry) and vaccinating animals, which makes them healthier and prevents premature death. Livestock vaccination can be sustainable if a promoter is trained to treat the animals and charge the local people the replacement cost of the drugs (Catley et al. 2002).

	<i>Animals vaccinated</i>	<i>Live barriers</i>	<i>Other structures*</i>	<i>Corn cribs</i>	<i>Metal grain bins</i>	<i>Fruit trees</i>	<i>Area re-forested</i>	<i>Agro-forestry</i>	<i>Farm produce sold</i>
Totals	29,125	5,325 <i>cuerdas</i> (~ 213 ha)	11,127 <i>cuerdas</i> (~ 445 ha)	191	48	2,899 <i>cuerdas</i> (~ 115 ha)	10,465 <i>cuerdas</i> (~ 420 ha)	2,707 <i>cuerdas</i> (~ 110 ha)	12,803 qq (5.8 tons)
Average per community	121	23 (~ 1 ha)	46 (about 2 ha)	0.8	0.2	12 (~ ½ ha)	43 (~ 2 ha)	11 (~ ½ ha)	53 qq (2.4 tons)

*e.g. compost pits

Save the Children works with 83 communities (94 in the first three years of the project)

activities (by family)	new bush beans varieties	gardens	micro-irrigation	maize dryers	grain bins	corn cribs
years 1-2	652	2576	0	33	913	54
years 4-5	2513	2339	69	432	84	660
Total	3165	4915	69	465	997	714

Save the Children has introduced the nutritious, high-yielding black beans to over 3000 households, and has encouraged nearly 5000 families to plant gardens, although only 69 of these were irrigated. No doubt some of these gardens are quite small, but it may be possible to irrigate more of them (even if only with waste water, in dry areas).

More PVOs should be encouraged to work with grain storage, to prevent food from being lost post-harvest. After the first three years of the project, Save the Children promoted more corn cribs and maize dryers, and fewer grain bins, as the staff learned from experience that the corn cribs work better in the more humid areas (while the silos work perfectly well in dryer places).

4.3.5 Agriculture and integration

Is agriculture integrated with the rest of the program? If not, where are the weaknesses?

Most if not all of the people in the agricultural or income groups receive rations through maternal and child nutrition activities, or used to but left those programs when their youngest child turned three. The people see the agricultural groups as a way of maintaining ties with the project once they no longer participate in MCH/N activities. In the case of Save the Children, people who start an activity, say a home garden, with the project may still receive technical assistance even after their child turns three (but apparently are not counted as beneficiaries). Some of the income-oriented agricultural groups generate food in unexpected ways. String beans that are rejected for export, e.g. because they are crooked, but are otherwise excellent food, end up in the family's cooking pot.

If there is a weakness with agriculture and income-generation activities, it is that only a small percentage of communities have them. Most CS staff would like to fund more agricultural activities, and would, if they had more funds (e.g. if they could monetize more commodities). Most of the activities seem sound, but we lack the quantitative data to say if they are making a difference in income-generation, and more to the point, if the health and nutrition of children improves if their parents make more money. SHARE is a partial exception: it has measured the increase in per capita income annually (see IPTT in Annex B). In 2005 SHARE had increased the per capita income of families participating in its income generation component by 66% over the baseline. It has not yet shown to what extent this may have benefited the growth of children and increased food security in the target communities.

CRS, with the help of Title II funding, created an independent Microfinance Institution, FONDESOL, that provides small loans to groups and individuals in all of the Title II areas where CRS and Caritas works. As the microfinance institution of the Guatemalan Catholic Church, FONDESOL will continue working in these regions and in others beyond the life of the DAP. With a \$1.3 M loan fund and 5,800 clients in five Departments, 45% of them female, it is a dynamic, sustainable source of support for income generating projects.

SHARE also provides semi-commercial microcredit opportunities on a smaller scale directly to some of its participants, who pay commercial interest rates.

Some groups linked with Save the Children borrow commercial credit for micro-businesses run by women (Box J.22), through the independent firm Genesis Empresarial, which has assumed Save the Children's micro credit portfolio. About 5,000 women are expected to participate (equal to about 80% of the 6,200 families currently served by Save the Children). Save the Children does not have income-generating groups *per se*, but has some promising income-generating activities with groups that are doing home gardens, grain storage and small livestock. See Boxes J.17-J.21.

Fortunately, the CSs are collecting data relevant to the question of whether and how much their agricultural and income generating activities contribute to the improvement of food security, as measured by reductions in malnutrition. We suggest that in the future the CSs compare changes in child health and nutrition (e.g. weight gain) with agricultural (and income) interventions. A simple statistic would be to compare weight change in children in communities with agricultural activities with children in the other 74% or so of the communities. A simple appraisal like this could be of much interest to development professionals elsewhere.



Juana Cucul in the tidy vegetable beds of the group garden, Chiyó, Carchá Alta Verapaz. The bean fertilizer experiment is in the background. Vegetables and organic fertilizer are just two of the many appropriate technologies promoted by the DAPs

Agricultural integration			
CARE	SHARE	CRS	Save the Children
Groups with promoters. Include some 'adopted' groups e.g. coffee coop in Chiyó (Box J.15), which started before the project. These groups are already established and may be sustainable.	Some new groups are spin-offs of MCH groups, others are not. SHARE has 'adopted' some older groups not previously involved in MCH. A few groups have elderly people. Group members are self-selected.	Groups tend to be largely women with male promoters, but include some elders.	Well-integrated with rest of project. E.g. goats are targeted to provide milk for low-weight children under three. Need to analyze data on weight change of children in families that keep goats.

4.4 Democracy: Participation, Organization, Empowerment

Participation, organization, and empowerment are central themes in all the DAPs, seen as essential elements in the construction of lasting food security. Each of the CSs has taken steps to strengthen the participation of DAP target communities in key activities and organizations. This has involved training participants to function more effectively; fostering responsive, capable leadership; encouraging the emergence of new leaders, especially women and youth; and building the capacity of local organizations to become self-reliant and self-replicating. Other rural development projects of the different CSs, some overlapping with the DAPs, also reflect the importance placed on the role of democratic processes in increasing impact and supporting sustainability.

At least three of the CSs proposed components that would strengthen and extend such activities in one or both of the past two DAP cycles. None of those proposals was approved by USAID/FFP for funding. As a result none of the DAPs is funded in the democracy/governance area, and three—those of Save the Children, SHARE, and CRS—did not include improving democratic processes among their DAP commitments. They should not be evaluated in that area, nor judged negatively for not being more heavily involved. Instead, they should be given credit for the extent to which they provide organizational training, encourage active citizen participation, and foster empowerment as an integral part of their approaches to health and economic goals that increase food security.

Of the four DAPs, only CARE's explicitly targets the improvement of organizational capacity and participatory decision-making at the community and municipal levels as a strategic objective, implemented through the FORTALEZA intervention. Even so, its scope has been limited by USAID's reluctance to approve support for this area. All funding of FORTALEZA activities must be justified in terms of their support for CARE's MCH/N and agriculture interventions. These activities include training local-level organizational technicians to work with the communities and their COCODES, and with the mayors, municipal planning offices, COMUDEs, and other organizations in each municipality. They are led and backstopped by specialists in the regional management teams. These activities involve about a third of the families participating in CARE's DAP (Table 4.1.a).

CRS also has a well-developed set of activities with municipal-level technicians to build organization, training capacity, and gender focus. It represents an intermediate state in the development of a democracy/governance program, not as extensive as CARE's but more so than the other two. SHARE's DAP includes a component on strengthening community-level organization and local capacity building, with training and manuals for DAP staff and partners, and indicator tracking in these areas that is integrated into M&E (see Annex B, Local Capacity and Organizational Strengthening Indicator Tracking Table). Save the Children also has organizational capacity building and leadership strengthening activities for its committees.

Do Better Democratic Processes Improve Food Security? An obvious question is to what extent does CARE's larger investment in organization and democratic processes pay off? Should USAID be encouraged to support such activities in future Title II food security projects? This section will explore that question, in part by asking whether the results of CARE's more extensive FORTALEZA project are conducive to food security in ways not available to the other DAPs. The other DAPs are used as a reference point. This should not be interpreted as a criticism of the other CSs, which were discouraged by the funding agency from developing initiatives in the Democracy area. Nor does it represent a merit for CARE to exceed the results obtained in this area by the other DAPs, which were not working with similar goals or resources. Each DAP should be judged by its own standards.

The overall status of democratic processes in the DAP communities and municipalities, particularly around the local development committees recently established by law, and their current and potential relation to the Title II program is a topic of interest to USAID. This is reflected in the specific questions posed by the Terms of Reference and will be also explored in the following pages.

4.4.1 Impact

CARE has established four indicators to track the results of its FORTALEZA project, two listed under its MCH/N intervention and two under the agricultural/income intervention (see the IPTT in Annex A). These are shown in the following table along with the results to FY 2005. The results reported are generally good

	FY 2001	FY 2005	
		Target	Achieved
# of community organizations involved in activities to improve their health and nutrition status.	132	200	189 (94%)
# of municipalities including health and nutrition activities in their annual plans	4	14	14 (100%)
# of community organizations implementing food security activities.	15	150	157 (105%)
# of municipalities that incorporate food security needs into government decisions on local plans.	2	14	14 (100%)

(an average of 100% of target levels were reached). But these indicators reflect rather poorly the variety and vitality of the actions being taken by the FORTALEZA field staff. None bears directly on the overall DAP impact indicators in those two areas, such as showing less malnutrition or greater per capita income in areas where the FORTALEZA interventions have been strongest.

The insertion of a democracy project in the DAP would be justified if it increases overall project impact and/or sustainability. These indicators measure neither directly. They are designed to quantify the

involvement of community organizations as well as behavior change at the municipal level (incorporation of health, nutrition, and food security considerations into local government plans) in terms that may be correlated with sustainability—but without focusing on the quality of the organizational results obtained (e.g., are health, nutrition, and food security provisions in the plans carried out? Has health/nutrition status and food security increased?). SHARE's indicators on local capacity building and organizational strengthening provide an interesting complementary approach (Annex B).

Impact in the democracy/governance area by the Title II program as a whole (and the relative efficacy of CARE's DAP) was assessed by interviewing community leaders and representatives of organizations in the communities visited, where the central organization was usually the Community Development Council (COCODES). In some cases mayors, Municipal Planning Offices (OPM), other municipal offices, and Municipal Development Councils (COMUDEs) were also interviewed, as were the second-level COCODES that bring together neighboring communities in the larger municipalities to set common priorities and establish shared development plans. Project staff was a further source of information.

With few exceptions, the COCODES, COMUDEs, and the local governments tend to focus on infrastructure rather than integrated development. It is unusual to find food security, health, or education as explicit goals. This narrow vision of development needs to be broadened. Some CARE experiences have shown that it is feasible to work with these entities and with the local agencies that collaborate with them to adopt a sustainable local development approach with a focus on food security and related areas. Those communities and municipalities that do assume broad responsibility for the food security and related needs of their populations, like access to quality health care and educational opportunities, are those in which the

participation, organization, and empowerment were observed to be most developed. They also offered the best opportunities for sustaining gains in food security beyond the life of the DAPs.

Most communities have had varying degrees of organization for years. It is common to hear of long-standing committees for infrastructure development (water, roads, electricity, schools, health posts, irrigation, etc.) and for economic and social improvement (agricultural cooperatives, health committees, community-run school boards, parent-teacher associations, security committees). Leadership was vested at times in traditional councils of elders, or in spontaneously organized community development committees. Where pre-existing forms had been well developed and survived, there is considerable existing capability. However, in a good number of DAP communities these organizational forms either never developed or were lost during the repression of three decades of violence and war.

National decentralization efforts in successive administrations led to widespread organization of Local Development Committees (early 1990s), Betterment Committees (Comités Promejoramiento; late 1990s), and COCODES (since 2002). The latter is based on changes in the Municipal Code, the Development Councils Law, and the Decentralization Law. These also establish the COMUDE in place of the earlier Municipal Development Councils, and the second-level COCODES to combine communities in larger municipalities where there are too many for each to be represented in COMUDE. The law provides that communities can adapt the committees and their bylaws to local customs and needs.

According to law, COMUDE must approve the municipal budget, of which at least a minimal amount should be dedicated to food security.¹ However, these provisions are not widely honored. Each municipality implements them as best it may. Often authoritarian positions on the part of mayors and municipal councils undermine participatory local planning processes. In many cases COMUDE simply rubber stamps the budget, which has been decided elsewhere; in a few cases budget priorities were set by COMUDE. The interviews revealed no instance in which the required amount was explicitly assigned to food security.

The first-level COCODES are umbrella organizations for the exchange of ideas, consensus building, and coordination of activities among all development and improvement groups active in a community. They are supposed to foster grassroots democracy, prioritize needs through transparent participatory means, and create self sufficiency in developing solutions through training and empowerment. Second-level COCODES do the same for groups of neighboring communities within larger municipalities. Their members represent the first-level COCODES. Many smaller projects like road maintenance or water system repair are accomplished within communities using their own labor and resources with the coordination of COCODES. Larger projects require mobilization of municipal or other external resources.

Importance of organizational development. In some places where no intervention aimed to strengthen them, the community and second-level COCODES and the COMUDEs were observed to be relatively well organized, apparently acting as effective sources of support for local development initiatives. DAP committee leadership training seemed to have carried improved organizational skills over to COCODES, facilitating consensus building and project initiatives. In the most cases however the community COCODES were weakly organized, second-level COCODES were ineffective or non-existent, and COMUDE was closely controlled by municipal politicians. Often, rather than increasing grassroots participation in municipal decision making and enhancing democratic processes, these structures had been co-opted as mechanisms to exercise top-down political control, divide communities, and avoid responding to their priorities.

¹ An increment of 0.5% in the IVA tax was destined to food security nationally; part of this goes to decentralized municipal funding.

In contrast, CARE's FORTALEZA project explicitly aims to improve community and municipal organization, and coordination between them. First and second level COCODES are strengthened and their members trained, as are the COMUDES. Both long range strategies and annual operating plans had been developed at each level, with consensus-based prioritization of projects. Constituencies are informed and trained to carry out social auditing activities. Where so disposed, the municipalities are fully engaged as strategic partners, planning and implementing activities to improve local development jointly with CARE. Networks of participating NGOs and GOs are consolidated; resource mobilization is enhanced and coordinated.

Organizational Levels. Members of COCODES were interviewed in 30 communities to learn about organizational processes and results. For comparative purposes a dozen criteria were used to categorize the COCODES. These represent important signs of organizational level that can be easily and reliably verified. Other criteria that may be more significant, like the degree of dependence versus empowerment, were not used because of the difficulty of dependably establishing them with the short time and serendipitous sample of interviewees available.

FORTALEZA & SUSTAINABILITY
 The success of this model in Tucuru, Alta Verapaz, has been impressive. The municipality treats CARE as a strategic partner for food security and related aspects. A cooperative agreement formalizes an evidently close relationship. First and second level COCODES are elected in assemblies and their members trained by the municipality. An Inter-institutional Coordinator integrates efforts of 22 GOs and NGOs active in the municipality. It is represented on COMUDE, along with representatives of second level COCODES, producers' associations, the mayor, and the municipal council. Food security interventions are jointly planned. Health and nutrition promoters and agricultural extensionists are hired through the municipality, some with project funds, anticipating that the municipality will later assume this expense.

Key Characteristics of Community Development Councils (COCODES)

1. COCODES is organized and legally registered.
2. COCODES commissions are formed and active, including most of the formerly existing committees. (In some communities previously existing bodies continue to be active and independent).
3. Citizen participation is broad, in both assemblies and commissions; leadership of different commissions does not overlap much.
4. Projects have been prioritized by consensus, organized, funded, and implemented.
5. Annual Operational Plans are being made and used.
6. DAP committees (usually health and food distribution) report regularly and fully to COCODES.
7. Long term plans have been made, based on participatory diagnostics.
8. Active links to 2nd level COCODES or COMUDE, and/or directly to outside sources of funding (if COMUDE is weak).
9. Projects have been done in alliance with other communities, other COCODES.
10. Focus on integral development, not just infrastructure (i. e., COCODES assumes responsibility for overall welfare and development of community and its members: health, education, food security, economic development, etc.).
11. COCODES participates in social auditing at the community and municipal levels.

12. COCODES requires NGO and GO projects in the community to consult, inform, and coordinate (including the DAP, which is usually among those that do not fully comply).

One to two hour interviews were done with one or more COCODES members in each community visited (see Annex I), often accompanied by other local leaders. Interviewees were self-selected and/or selected by the host CS. A list of points was used to guide the semi-structured interviews. Usually representatives of the DAP staff were present. Where needed, translators were used for Mayan languages.

The discussion included much more than the list of criteria used here to classify the COCODES. Processes that led to the differing degrees of organization, participation, and empowerment were of particular interest, as was the relation of the DAPs to the development of democratic processes.

The main conclusion from the interviews was that the level of organization, participation, and empowerment was rather low, though it varied widely. For instance, compared to participatory local development processes promoted by DAPS in Honduras and Peru (Schnell 2002), the processes in most of these communities appeared to be slower starting and less advanced. This may be due to the very different recent history of Guatemala, where the murder of many community leaders during the war years and the lasting trauma from that period has made rebuilding leadership difficult. Nonetheless, much work is left to be done if sustainability is to be attained. This was reflected in the results of the qualitative classification (Annex I).

Of 30 COCODES interviewed, 13 fulfilled 0-4 of the criteria, 15 satisfied 5 to 8, and only 2 had 9 to 12 of the characteristics listed. Only six satisfied over half the criteria (7-12). In most cases it was doubtful that the COCODES interviewed could contribute significantly to the sustainability of the DAP interventions. Since these probably represent a favorably biased sample of the DAP universe,² the average level of organization must be low indeed. However, the scores for CRS and especially CARE tended to be higher, suggesting that additional investment in organizational interventions can pay off. Most of the COCODES trained by CARE seemed capable of contributing significantly to the sustainability of food security gains, especially in the context of the better-organized municipalities that had been receptive to strengthening by FORTALEZA—as did a few of those trained by CRS and Save the Children.

These observations support the idea of strengthening the democracy components in future Title II projects, but it would be risky however to read too much into them. They are impressions based on small and uneven samples from the different DAPs, and they focus on a single organizational stratum: COCODES. There was no attempt to comparatively assess the quality of participation, organization, and empowerment in the community health committees, for instance. That would have been more conducive to the task of evaluating the four DAPs on an even footing in the democracy area, but was not what was prioritized in the TOR, as reflected in the questions on the following pages. The answers presented to these questions are based on the written responses of the CSs to the same questions in combination with field observations.³

² As requested, the CSs took the evaluation team to a combination of strong, middling, and weak communities, but practically all had a fuller range of interventions than the average (i.e., agriculture/income, infrastructure, FFW, and/or democracy activities in addition to the core MCH/N work). This facilitated observation of different types of interventions by the evaluation team, but undoubtedly made for a non-random sample of the DAP sites, weighted toward those that had been the object of more extensive efforts.

³ The three CSs that do not have a DAP intervention aimed at promoting democratic processes—CRS, Save the Children, and SHARE—have questioned being subjected to “evaluation” in areas not covered by their DAP cooperative agreements. This concern is understandable; yet that is not intended. The questions in italics were posed in the TOR that was approved by the CSs. An attempt has been made to address them factually. Characteristics described for a CSs should not be taken as relevant to the evaluation of its performance, except in the case of CARE. Rather than find fault, the intent is to build an overview of what is happening in the democracy/governance area in order to learn whether it is worth pursuing and what may strengthen it in the future.

Are the CS targeted communities integrated in COCODES (Consejos Comunitarios de Desarrollo)?

Virtually all the participating communities of each CS have organized COCODES. The degree of participation, level of organization, and amount of activity vary widely. Some are shells that operate in name only, while others are highly organized and act as effective consensus-building, priority making, resource mobilizing, and project development bodies. Others are actively pursuing infrastructure projects under strong uni-personal leadership. A very few have reached a level of organization and empowerment which allows them to assume responsibility for integrated development issues, like food security, community health, raising educational levels, and economic development.

What type of support do the CSs provide for the integration and function of the COCODES?

CRS and CARE promote the organization of COCODES, explain the provisions of the new laws and the objectives and mechanisms of COCODES, provide gender focused training in leadership and organization (how to define roles, determine rights and responsibilities, elect members, run meetings, keep records, prepare reports, improve skills, etc.), and facilitate establishment of COCODES with technical assistance. They also help establish participatory diagnostic and planning processes, and foster links to COMUDE and other municipal actors. At least three DAPs have training programs to increase leadership capacity and diversity, aimed especially at involving more women and youth in community committees, including COCODES.⁴ CARE also trains representatives to second-level COCODES and COMUDE to be more effective and has introduced risk management planning in some communities. The emphasis is on building social and human capital to strengthen COCODES and COMUDE.

The SHARE and Save the Children DAPs do not contemplate direct support for COCODES. Nonetheless, some COCODES reported having received limited amounts of organizational training from them. Since some members of COCODES usually belong to the DAP committees also, organizational training there may carry over. SAVE tries to include the COCODES in its community level Health Sector Situational Analyses, though this was not reported by those interviewed. Using complementary funding, SHARE has supported about 25 COCODES during a year with training in leadership, financial controls, monitoring community labor, opening bank accounts for the administration of funds, and resource mobilization.

How do the CSs take into consideration the Municipal Plans to implement their activities?

Most municipalities do not have functioning long range plans; because of that, CRS, Save the Children, and SHARE indicated that they have been generally unable to work with Municipal Plans. In fact, several of the municipalities interviewed did have Poverty Reduction Strategies on their books, facilitated by a GOG/WB project. Though many of these are not in active use, they could be consulted and used to the extent appropriate. CARE has targeted this vacuum in its FORTALEZA project, working with the local governments to strengthen the OPM and to promote the introduction of participatory planning processes involving community leaders and other sectors. It also supports the formulation, review, communication, and social auditing of the results.

In planning roads and other programs of interest to local governments, each CS indicates that it tries to consult municipal authorities on priorities, as well as to request financial inputs. However, this is not always possible, especially for those that do not have programs that target local government.

What roles did the communities have in the development of the CS's activities?

Based on the interviews, communities were not involved as partners from the first, and did not participate in project design or in planning the DAP food distribution and MCH/N interventions. Nor in the cases examined were local governments consulted on their priorities for locating DAP programs (relevant to

⁴ SHARE for instance has increased leadership by women in interest groups from 4% to 63% over the course of the DAP and leadership by youth from 4% to 17%, using methods documented in its "Tecnología Basica de Organización Comunitaria" to promote this leadership. The extent to which this carries over into the composition of other committees like COCODES is unclear.

poverty reduction plans, etc.). Under pressure to get started, the CSs tended to arrive in a top down manner to offer their programs, which were conditioned on the willingness of the community to participate and play by non-negotiable DAP rules. Food distribution often was used as a hook, not as a resource to catalyze mutually agreed development processes. This approach, tending to deepen dependency and the expectation of handouts, was shared to some extent by all DAPs, despite the empowering nature of later interventions in some cases. It is noteworthy that several highly food insecure communities, some of them apparently well organized, opted out.

These observations contrast with the well conceived, systematic approach to exploring relationships and building rapport with communities documented by SHARE in its handbooks on selection of communities and on training and evaluation of partners. This methodology might well serve as a model for future Title II projects. However it seems to have been forgotten or not well applied in the cases examined at some SHARE sites, in which COCODES representatives were asked to describe how their communities got involved in the DAP. This discrepancy may reflect hasty work on the part of partner organizations.

During implementation, community members had various roles: as protagonists of specific activities, helping prioritize infrastructure or agricultural projects, creating work plans, electing leaders, collecting data on health and on children's' growth, and many others.

What municipal strengthening activities do the CSs support?

SHARE and Save the Children did not directly target municipal strengthening and have relatively few activities that do so secondarily, like infrastructure projects or occasional participation in COMUDEs. CRS and especially CARE have done training on rights and responsibilities, participatory planning, municipal budgeting, how to access information and technical assistance, and social auditing, among others. CARE established cooperative agreements, helped develop municipal plans, strengthened the OPM (see below), trained COMUDEs and developed bylaws, fostered development of institutional networks and NGO coordinating bodies, facilitated risk management plans, and helped establish inter-municipal associations and risk management coordinating bodies.

What citizen participation activities do the CSs support at the municipal level?

Save the Children and SHARE, none. CRS trains citizens in their rights and duties, motivates women to register as citizens, sensitizes citizens on gender issues, helps form leaders (male, female, and youth), and runs campaigns advocating responsible voting; all these have some impact at the municipal level. CARE also prepares citizens to participate more effectively and helps channel citizen participation through community assemblies, COCODES, and COMUDE, and promotes thoughtful voting in municipal elections. It also trains COMUDE members in parliamentary procedure, roles of the different kinds of members, integrated development processes, and advocacy skills.

According to CARE, strong, informed citizen participation is an essential ingredient of its municipal democracy/governance strategy. The goal is to shift significant resources from other uses to satisfy the needs of food insecure communities—against the resistance of other interested parties. Working effectively at the municipal level requires gaining familiarity with local politics: the interests in play, the local power structure, the relevant legal, procedural, and regulatory frameworks, the resources that can be mobilized, and much more. It needs the development of skills: awareness building, mentoring, negotiation, and advocacy. It takes patience—progress is slow, the opposition is persistent. But in the end, the determining factor is the decided backing of an organized citizenry.

What type of activities do the CSs support with the Municipal Planning Offices (OPMs)?

SHARE and Save the Children have few activities with the OPMs except those having to do with approval of projects or obtaining information on communities. CRS is limited to coordination and development of alliances, since no funding is available to work with OPMs. CARE treats the OPMs as key allies in support of long term food security and works extensively with them. This includes help with OPM job descriptions,

technical training, operational planning, and advocating support from the municipal council. CARE also helps link OPMs to other institutions for on-going training and technical support, exchange of ideas, and networking. In some cases office furnishings and computers were donated to OPMs to enable an earlier start-up. Internet systems have been supported in several municipalities, as has the development of municipal data bases in two places and digitalized institutional maps in others.

In alliance with SEGEPLAN (the General Planning Secretariat), CARE supported the formulation of local development plans in all 14 of its target municipalities. In 13 cases participatory processes involving community groups, business and institutional representatives, and civil society leaders were successfully established. Some took the form of Strategic Plans, others Poverty Reduction Plans, and some were Municipal Development Plans; though some have been shelved, the majority is in active use by the local governments. Besides providing technical assistance, training, and co-financing for those plans, CARE has fostered elaboration of risk management plans, project profiles, and institutional strengthening plans.

Are the mayors aware of the CSs activities and do they support them?

The mayors are aware of the DAPs and generally familiar with the interventions of greatest interest to them, such as food distribution and FFW infrastructure projects. Attempts have been made by each CS to inform mayors about the DAPs (and usually the municipal councils and COMUDES as well), but these have not always been successful. Some mayors have been quite supportive, and at least one of those interviewed had made food security a goal of the municipal development plan. But others are uninterested, sometimes because of competition for scarce resources, not knowing their responsibilities for human development, bad experiences with other NGO interventions, or political opposition to the rise of participatory processes in communities.

4.4.2 Special concerns

Other DAP-related committees. Besides COCODES, each DAP promotes the organization of sector-oriented local committees and interest groups in support of its health, nutrition, agricultural, marketing, and infrastructure interventions. This is done both by strengthening existing bodies like health committees and by facilitating the formation of new organizations where needed. Each has leadership training sessions and/or workshops to broaden participation by encouraging the emergence of new leaders, especially women and youth, and increasing their competency. However, there often appears to be a tendency toward fostering the emergence of one or relatively few leaders with individualistic leadership styles that are each involved in several committees, rather than empowering many participants and aiming for group-oriented consensus-building. Such organizational styles are quicker to promote and may be easier for middle class staffers to relate to, but they limit the extent of the capacity developed, the self-sufficiency of the organizations, and the sustainability of the community food security effort. The tendency toward individually run bailiwicks may partly explain why DAP committees have been difficult to fully integrate into COCODES.

Quality of leadership. The presence of strong, unipersonal leaders is widespread. These leaders tend to treat the COCODES or other committees as personal fiefdoms. Organizationally primitive, this tends to reduce levels of participation and empowerment of others. It also lessens organizational strength and management capacity by limiting the numbers of participants who might otherwise learn to act creatively as co-leaders under a paradigm of shared leadership and empowerment. Sometimes there was competition for leadership and/or schisms that had led to break-away committees, in which competitors isolated themselves to build competing fiefdoms. These reduce coordination and waste effort. Unfortunately, many DAP staffers seemed to consider this kind of leadership satisfactory. They should focus on carrying the organizational process forward toward mutual support, shared leadership and widespread empowerment.

Better links to Municipalities. The municipalities with their planning offices, potential for participatory planning, and their reliable budgets are an obvious center-pin for any sustainability strategy. SHARE and Save the Children generally have not placed a high priority on cultivating strong links to them (though this varies from place to place); CRS is intermediate in the level of priority but has limited funding for forging municipal links; CARE gives them high priority but is also resource-limited and has not succeeded everywhere. This is not a criticism of CS performance, but an observation of opportunities not fully realized, stemming from the DAP design and approval process.

Gender issues. While each CS espouses the need for gender equity, women's participation continues to be notably low in many COCODES and elsewhere, giving an impression of complacency. Traditional gender roles are by and large reaffirmed, with mostly women in health committees and a preponderance of men in agriculture and income groups, as well as in decision-making positions. While there are some notable exceptions, like the all-female income generating groups at some sites, efforts toward gender equity need to be increased. An example is SHARE's initiative to monitor and provide regular feedback to partners and staff on the participation of women in leadership roles: female participation in interest group leadership roles soared from 4% to 63% between 2002 and 2005 (Annex B).

4.4.3 Sustainability and exit strategy

Sustainability involves many factors beyond those discussed here. For a fuller treatment, see section 6.4

In general, exit strategies based on strengthened democratic processes are weak or non-existent. Obviously this is due in part to the reluctance of the donor to approve such components in the design of the DAPs. Nonetheless, CRS and CARE have developed partial approaches that complement each other: graduating communities and integrating municipal support systems. These initiatives may provide a model for future projects.

Graduation of communities. Only CRS has an explicit set of criteria for "graduating" communities, to determine when they are ready to be separated from the main DAP interventions and can be left to proceed on their own, with minimal follow-up and monitoring. Between FY 2003 and FY 2005, 63 of CRS' 374 communities completed all requirements for graduation to self-sustaining status (IPTT, Annex C). In order for a community to graduate, the following goals must have been attained:

- COCODES legalized and operating well.
- At least one project successfully and independently managed from start to finish.
- Strategic alliances developed with other local organizations.
- Male and female community leaders trained in project administration, advocacy, proposal development, and organizational expansion.
- Community development plans done with participatory methods that identify clear areas of need and steps to be taken to improve the situation.

Though CRS has gotten at least 63 communities ready, none has actually graduated to date, in the sense of being left to its own devices. Nor has it been decided what kinds of follow-up and monitoring ought to be provided to fledgling graduates. Self-sustaining support systems within their municipalities are not being prepared.

Weaving municipal support systems. CARE has focused in-depth on building sustainability by encouraging municipal-level public sector actors to assume their responsibilities, weaving a web-work of institutional and private sector support within each municipality, and bringing to bear national and

departmental programs where relevant. Engaging the municipal health system, local government, official agencies, and NGOs, CARE aims to build support for food security in the sectors that have reliable budgets and are charged with supporting key aspects. At the same time, citizen participation through democratic processes is strengthened, potentially providing the capacity for political pressure and social auditing needed to keep the institutions on track. This is a promising context in which to leave graduated communities—if only CARE had a system to graduate them.

Strengthening sustainability. Several potential weaknesses in the democracy/governance area may reduce sustainability of DAP food security initiatives even in the best of cases: 1) little capacity has been developed at the municipal level for on-going training of successive waves of COCODES and COMUDES members, nor have links to reliable outside sources been structured; 2) local governments are not formally committed to assume the costs of maintaining the community health system, the agricultural extension staff, nor the training of COCODES and COMUDE participants; 3) continuing training and support from civil society, private sector, and national agencies (e.g., SEGEPLAN, SESAN) are not assured, and 4) the stability of the current arrangements often seems to depend more on the good will of the mayor and his associates than on institutionalized commitments, consensus-based long term plans, and the organizational strength of well united communities. The role of CRS and CARE as facilitators of self-sufficiency was mixed with other roles that tend to perpetuate dependence, such as those of donating technical assistance (e.g., marketing plans), food aid, policy inputs, training, and/or enhanced municipal staffing, often with no clear maintenance, replication, or other sustainability commitments from the recipients.

4.4.4 Recommendations

Please see Section 7.4.

4.5 Infrastructure (Including Water, Sanitation and Food for Work)

Only water and sanitation activities are specifically mentioned in the TOR, but these are a small part of the many infrastructure and other community (and individual) work activities supported by the DAPs. This section has been broadened to address the infrastructure and other community improvement activities that were observed. Section 4.6 deals with associated issues around environmental mitigation and Regulation 216.

The bulk of the infrastructure activities of three DAPs is associated with food for work (FFW) support; in turn, the FFW component of food aid distribution is almost synonymous with labor on infrastructure projects. The two will be treated together here. CARE policy has not permitted using FFW at all; SHARE allows it only for community infrastructure projects. The use of FFW by CRS and Save the Children to create productive assets such as micro irrigation systems, composting pits, post harvest drying and storage facilities, and income-generating agricultural crops is also relevant to Agriculture and Income Generation (Sect. 4.3).

4.5.1 Overview of Activities

Better infrastructure contributes to improved food security in vulnerable populations by increasing access to basic factors like water, sanitation, roads, energy, markets, health care, education, networking, and participation in decision making processes. Improved productive infrastructure can also contribute significantly to community food security. The installation of both types—basic services and productive infrastructure—is severely limited by lack of funding; larger infrastructure projects depend on mobilizing co-financing. The following types of activities are carried out in one or more of the DAPS (Tables 4.5.1.a and 4.5.1.b, below, summarize the DAP infrastructure projects carried out with and without FFW).

a. Construction of community infrastructure (with and without FFW)

Water systems

Community labor for building piped water systems has been supported through FFW in 88 communities, where the bulk of construction costs were covered from other sources. An additional 127 systems were supported without FFW. Over 19,500 families benefited. Training of community water committees in management and maintenance has also been done by all four PVOs, both with and without FFW support for the days dedicated to this task.

- CARE has facilitated construction or repair of 105 water systems serving 7,900 families without FFW, through fostering alliances, helping with pre-investment studies, and providing seed money that is repaid into community-level revolving funds.
- Save the Children has trained 20 community water committees in the management and maintenance of water systems without FFW, and has provided FFW to dig trenches for 21 new water systems benefiting nearly 2,600 households.
- SHARE has used FFW to help build or repair 23 piped water systems for almost 4,000 families. SHARE's FFW programs require contributions equivalent to about 10% of the value received to form a community revolving fund for investment in maintenance and further infrastructure needs. SHARE also constructed 13 water systems through complementary USAID funding in 2004, without FFW, serving 2,400 households.

- CRS has supported construction or repair of 44 water systems supplying 3,500 households, using FFW and \$136,000 in outside funds, mostly from its own fundraising efforts and those of its CARITAS partners, supplemented by inputs from the Ministry of Health (17 cases), INFOM (6 cases), five municipalities, and other NGOs (2 cases). The FFW has been an incentive for trenching, transport of materials, construction of tanks, and installation of pipes and other components. CRS FFW also supported training of participants in proper construction, operation, and maintenance of water systems; water quality and disinfection; personal and household health and hygiene; organization of water boards; protection of water sources and watersheds; and maintenance of environmentally sound minimum stream-flows. Establishment and improved functioning of water boards to provide for operation and sustainability of local water systems has been fostered.⁵
- CRS has also trained members of 208 communities in the use of the SODIS system of appropriate technology for solar disinfection of water in transparent bottles (discarded beverage bottles, etc.). This has the advantage of being cheap, effective, environmentally friendly, and easily adopted by participating families and schools. Starting with the school community—children, teachers, parents—and with mothers participating in the MCH/N interventions, use of the SODIS system has spread easily into the communities via horizontal (person to person) replication.

Further discussion of DAP water and sanitation activities, FFW, and related issues is found below.

Roads and bridges

Over 280 km of earthen roadways have been built or improved in over 40 projects by Save the Children and SHARE, generally using FFW resources to support municipal government road improvement initiatives. Five bridges have also been built or repaired by SHARE without FFW. These activities have a significant impact in improving access to food as well as to addition to health and educational facilities. The projects benefited over 22,200 families.

Micro irrigation systems

A total of 95 micro irrigation systems were reported as DAP-supported by all four DAPs serving 1,650 families; 36 were for groups and 59 of them were single family units by Save the Children. FFW resources were used for three of the group projects (283 participating families) by Save the Children and SHARE. CRS supported construction of 26 micro irrigation projects for 324 farmers, 21 using drip irrigation and 5 with sprinklers, either complementary funding and labor by participants, but without FFW (however, in at least two cases, participants reported receiving FFW). Partner institutions provided technical assistance in system design, implementation, and maintenance, as well as in agricultural management; protection of natural resources and mitigation of local environmental impacts was emphasized. CARE provided technical assistance to support start up, production, and marketing in six micro irrigation systems built by other projects, covering 854 families.

Buildings

Construction or improvement of schools, health-related community centers (variously called convergence centers, base houses, etc.), and other structures has been supported with inputs from DAP funds. For example, Save the Children has built or rehabilitated 63 “base houses” (community spaces to increase access to health/nutrition services). SHARE has supported construction of three community centers with FFW—

⁵ CRS trains with its SAS (Health, Water, and Sanitation) methodology, based on a series of eight facilitation manuals produced by the DAP (CRS 2005).

simple structures for use in growth monitoring and other health related activities. In most cases where buildings are required, communities are encouraged to approach municipal or institutional sources of support.

b. Improvements to individual farms/homes

Grain dryers, corn cribs, animal pens

Save the Children and CARE reported supporting installation of over 4,200 grain and coffee driers and corn cribs, with the provision of key materials like tin roofing, plastic sheeting, and other hardware. Similarly, SHARE reported providing chicken wire, roofing, cement and other non-local materials for 102 groups (2,346 participant families) working with small livestock and CARE reported providing chicken wire for over 4,600 pens to manage poultry and small livestock (the other CSs are known to have supported animal enclosures but did not report how many). CARE provides these materials as loans that are repaid into a revolving fund managed by the participants; SHARE's groups repay at least 25% of these investments to be reinvested in other groups. Wood, other local materials, and labor are supplied by participants in both cases, without FFW incentives.

Composting pits (some done with FFW)

CRS has involved 6,400 families in establishing compost piles of various sorts. Farmers were provided FFW support to clean and level the ground, dig pits, gathering and transport of organic material for composting, and maintenance of the compost pit until organic fertilizer is produced. Training in the use of organic fertilizers for application to soils and foliage, green manures, and crop rotation was done in parallel. Agroecological management of pests, natural hosts, and related topics were also taught. Save the Children promoted building of 1,200 compost pits in Quiche, most without FFW (some participants reported receiving FFW incentives for digging household compost pits as part of clean-up campaigns). SHARE has supported 2,600 families installing compost pits without using FFW. CARE fostered 762 projects that supplied 2,500 farmers with compost pits and/or earthworm boxes as options for farm improvement, also without FFW.

Improved, energy-efficient stoves (some done with FFW)

Save the Children fostered adoption of improved stoves in 2,900 households by providing the expensive cast iron stove top and technical support for building the stoves; participants were selected from families whose children were not gaining weight well but were active and compliant in the MCH/N activities, to provide an additional resource to those food insecure families (without FFW). SHARE reports giving stove tops and technical assistance for constructing energy efficient stoves to 587 families in three projects without FFW, as well as to 116 families in two projects with FFW support.

Soil conservation/erosion prevention: terraces, living barriers, etc. (some done with FFW).

Save the Children provided FFW support for soil conservation measures on 681 ha by 861 families, as well as promoting similar measures for 254 families without FFW. SHARE has facilitated soil conservation work on 3,541 ha without FFW by 6,068 families; CARE did so on 928 ha with 8,531 participants, also without FFW.

CRS has provided FFW support to about 7,000 families for the implementation of soil conservation practices in their parcels, such as terracing, living and stone barriers, drainage channels, transport and spreading of crop residues, and firebreaks. Save the Children has encouraged such practices by 1,115 household on 693 ha, using FFW incentives in 861 cases. The same 7,000 CRS families have also participated in reforestation and

fruit tree planting to protect hillside soils, some of it on their own parcels. FFW has supported construction of nurseries and raised beds, soil preparation, and bagging of seedlings, and transport of fertilizers, organic material, and seedlings. FFW has been used also to support planting of seedlings and maintenance of plantations in later years.

The practice of using FFW for reforestation and fruit tree establishment on private parcels is probably not in accordance with the spirit of FFP guidelines. Given the potential for natural reforestation by pines and other native trees in many of the sites visited, it also smacks of a make-work activity--foresters often recommend against tree planting in such areas, as it is a cost-ineffective reforestation method.

Establishment of fields of income-producing crops (some done with FFW).

FFW was also used by CRS to support planting of high value horticultural crops targeted at local and export markets in at least some cases (e.g., Las Trojas, San Vicente). These crops were in fields where FFW had also been used to support the construction of irrigation systems. The instances cited may have been exceptions, in which the FFW was a mechanism to support a temporarily vulnerable community or to encourage a group of women to undertake an agricultural project (as a technician explained). However it seems a questionable use of this sort of incentive, contrary to the stated purpose of fostering entrepreneurial attitudes and skills among participating farmers. It is also contrary to FFP guidelines as usually understood.

Latrine construction and repair (some done with FFW).

About 10,800 latrines were constructed with DAP inputs. These typically included roofing tin, a concrete floor, a seat, ventilation tubing, and in about half of the cases, FFW incentives for the labor. Some DAPs required participants to provide local materials for the walls (e.g., CRS); others supplied tin or other material for walls (SHARE). All provided training in health, hygiene, and proper use and maintenance of latrines.

- CRS supported the installation of 4,101 latrines with materials and FFW for their efforts in carrying materials, leveling, digging pits, and building the structures. Training of beneficiaries in health and hygiene as well as in latrine maintenance and environmental protection is done without FFW.
- SHARE supported building of 876 latrines with FFW and materials.
- CARE helped participants in 64 projects with materials for 3,539 latrines.
- Save the Children helped with materials to install 2,299 latrines.

Installation of laundry sinks and gray water drain pits (done with FFW)

CRS has used FFW and materials donated by the DAP to outfit 779 families with laundry sinks and 458 with drain pits to dispose of the wastewater from them. The sinks include water storage tanks for rainwater capture and to maintain a stock of clean water for domestic use. Beneficiaries receive FFW as an incentive for their efforts in carrying materials, making and pouring concrete, excavation of drain pits, and construction of the combined installation. They also participate in training sessions on operation and maintenance of the structures and in health education processes that build awareness of the importance of clean water and proper disposal of wastewaters. Some drain pits are designed to allow re-use of gray waters for irrigation after passing through grease and suds traps.

Table 4.5.1.a Infrastructure Projects/Activities Without Food for Work												
CS	Water systems	Latrines	Roads/Bridges	Micro Irrigation	Community Buildings	Grain Driers, Cribs	Compost Pits, worm beds	Energy Efficient Stoves	Soil Conservation	Laundry Sinks, Drains	Environmental Clean up	Others (fish ponds, hen houses, stock pens, etc)
	# of systems (total hh benefited)	# projects; (total hh benefited)	# projects; (total km; total hh)	# projects; (total farmers benefited)	# projects; (total # of buildings)	# projects; (total hh benefited)	# projects; (total hh benefited)	# projects; (total hh benefited)	# projects; ha; (total hh benefited)	# projects; (total hh benefited)	# projects; (total hh benefited)	# projects; (total hh benefited)
CARE	105 (7,900)	64 (3539)	-	6 (854)	-	1,756 (1674)	762 (2500)	-	928 ha (8,531)	-	-	92 (4635)
SAVE	20 (67 water board members)	(2299)	-	59 (59)	63	(2610)	(1,200)	(2935)	12 ha. (254)	-	-	-
SHARE	13 (2,408)		5 bridges (598); 16 roads, > 30 km (3,317)	1 (130)			2,483 ha w/ organic fertilizer (2,609)	3 (587)	214 km of barriers and 3,541 ha w/ soil conservation techniques (6,068)		1 (112)	102 (2,346)
CRS	-	-	-	26 (324)	-	-	-	-	-	-	(3,533)	-
Totals:	127 (9,472)	>65 (5838)	21, >30km (3,915)	92 (1,367)	63	>1,757 (4284)	>764 (6,309)	>4 (3,522)	4,481 ha (14,853)	-	(3,645)	96 (4,973)

Table 4.5.1.b Infrastructure Projects/Activities Supported by Food for Work												
CS	Water systems	Latrines	Roads/Bridges	Micro Irrigation	Community Buildings	Grain Driers, Cribs	Compost Pits	Energy Efficient Stoves	Soil Conservation	Laundry Sinks, Drains	Environmental Clean up	Others (fish ponds, hen houses, stock pens, etc)
	# of systems (total hh benefited)	# projects; (total hh benefited)	# projects; (total km; total hh)	# projects; (total farmers benefited)	# buildings; (total hh benefited)	# projects; ha; (total hh benefited)	# projects; (total hh benefited)	# projects; (total hh benefited)	# projects; (total hh benefited)			
CARE	CARE does not include FFW in its DAP											
SAVE	21 (2,595)	-	191 km (10,206)	1 (80 farmers)	-	-	-	-	681 ha (861)	-	73 (7,697)	-
SHARE	23 systems, (3,970)	6 (876)	61 km (8137)	2 (203)	3 (365)	-	-	2 (116)	-	-	-	-
CRS	44 (3,533); 208 communities w/ SODIS solar water purification	(4,101)	-	Reported by participants, not by CRS	-	-	(6,398)	-	(7,000)	779 laundry sinks; 458 drain pits	-	1
Totals:	88 (10,098)	>6 (4,977)	252 km (18,343)	3 (283)	3 (365)	-	6,398	2 (116)	(7,861)	(779)	73 (7,697)	1

Environmental/household clean-up and home/garden improvement: clean-up, fencing, & repair (some done with FFW).

Save the Children provided FFW resources to 7,697 families in 73 communities to clean up their living spaces, removing human and animal feces, building or repairing fencing to keep animals out of houses and vegetable gardens, fixing roofs, digging garbage pits, providing covered shelving in kitchens to store clean dishes, food, and water, and the like. The activities observed amounted to clean-up, repair, and minor improvement to individual homes and home gardens, something that doubtfully falls within the guidelines for FFW support.

Other DAPs promoted similar activities as part of the health and hygiene training, but without using FFW. For instance, CRS has promoted quarterly community cleanliness and garbage collection campaigns involving 3,533 families. Activities include neighborhood trash removal, improved garbage collection and disposal, clean-up around wells, and preparations for rainwater harvesting.

4.5.2 Infrastructure and FFW Policy Issues

The infrastructure activities of the different DAPs bring out several issues.

- What are permitted uses and best practices for FFW? Should it be used to support productive initiatives? Improvements in private homes and parcels? Activities that people would have to do anyway?

The practices of the different CSs with regard to the use of FFW are contrasting:

- ⇒ CRS provides FFW support to install latrines, laundry sinks and drains, compost pits, soil conservation measures, and income-producing horticultural crops in individual parcels, as well as to improve community infrastructure like water and micro irrigation systems.
- ⇒ Save the Children's policy appears to parallel that of CRS in permitting the use of FFW to improve the properties of beneficiaries (soil conservation, household repair and environmental clean-up), as well as for community projects like training in water systems, road improvement, and a micro irrigation system.
- ⇒ In contrast, SHARE's policy excludes using FFW in agriculture, reforestation, and natural resource management activities, with the idea that farmers should develop sufficient awareness of the benefits of these activities to themselves and their communities to carry them out without the need for incentives. SHARE does use FFW to support installation of household latrines and stoves.
- ⇒ CARE's policy is even more restrictive: FFW has not been used for any DAP activities in order to avoid undermining self reliance in carrying out activities that benefit the participants.
- How can the uses of FFW and in general of infrastructure interventions be standardized to avoid contradictory practices by different CSs (e.g., household latrines built with and without FFW by different CSs in the same municipality; energy efficient stoves promoted with and without FFW by the same CS)?
- How can empowerment best be served and dependency avoided where FFW is used?
- What should be the relation to the MCH/N intervention; how can infrastructure/FFW activities best be integrated around food security purposes? How to foster infrastructure in support of development without falling into the stereotype of "infrastructure as development"?

- How can the overall effectiveness (impact on food security) of infrastructure projects best be judged? Whether with or without FFW, effects are both direct and indirect, positive and negative.

4.5.3 Water and Sanitation

Each DAP has treated access to clean water and improved sanitation as critical to better health, nutrition, and food security. Funding limitations have led to collaborative strategies to achieve this mostly by supporting small steps in coordination with the MSPAS, local government, other institutions, and participating communities, as opposed to directly funding water system infrastructure projects. Modest inputs of materials, training, and FFW for latrines, wastewater drains, and water purification systems are targeted to the families participating actively in MCH/N activities.

CRS and CARE have water and sanitation technical specialists that support the DAP. CRS has developed a set of nine publications on health and nutrition practices that include a manual on water and sanitation, with a sustainability strategy for water and sanitation projects which ensures maintenance of the infrastructure once the project is completed. CARE has implemented the Modelo Basico integrated intervention strategy established by Guatemala's Municipal Development Institute (INFOM) for rural water and sanitation projects. There appears to be an opportunity to compare these models, identify best practices, share them with the other CSs, and unify approaches to integrated water and sanitation interventions in the MYAP.

What have been the impact/results/achievements of the water and sanitation activities in terms of improving food security of participating families?

- Community-led construction and rehabilitation of piped water systems have been supported with FFW, training of water boards, and by mobilizing other resources. The resulting improved access to clean water makes for better health, reduced effort in carrying water, and more time to dedicate to other activities that contribute to food security.
- Technical guidance, help with contacts, and training in project development and resource mobilization have aided communities to obtain support for water and sanitation systems from municipalities, national agencies, and other sources. Approaches at some sites were more strongly focused on building community capacity than others.
- Training of water committees has improved water quality and reliability, and has strengthened the operation, maintenance, and administration of water and sanitation systems.
- Water quality has been improved by promoting chlorination. CRS has introduced the SODIS solar disinfection system for household drinking water.
- Systems for rainwater capture and re-use of wastewater for irrigation have increased water availability and reduced the time and energy spent on carrying water.
- Training and promotion of hygiene and clean water protection practices, usually via the MCH/N interventions, accompanies these measures to improve water and sanitation (all DAPs).
- Latrine installation has been supported both directly through provision of materials (all CSs) and/or FFW resources (SHARE, CRS) and indirectly through training and technical assistance (all CSs). Typically support for building a relatively small number of latrines (10-30) is made available to families participating in the MCH/N program at a given site. Selection is usually done by the health committee, often rewarding active participation by families with underweight children that lack latrines.

- Drainage pits for wastewater disposition (sometimes designed to permit re-use in the dry season) have improved sanitation.
- Garbage and compost pits have been installed.
- Chickens, goats, and other small animals have been penned to improve household sanitation, use the manure, and protect home gardens, often with fencing materials provided (all DAPs).
- Environmental clean-up campaigns remove feces and trash from public places and yards.

These measures to improve water and sanitation are monitored by the PVOs at the level of processes and products. Behavior changes due to health and hygiene training and promotion are measured in the MCH/N projects. But impact indicators for the water and sanitation interventions have not been developed in the DAPs; this needs to be explored. Tracking diarrhea prevalence in participating children, though part of the MCH/N procedures, has not been used as an indicator of success in sanitation and hygiene by; it has worked well in MCI and water and sanitation projects elsewhere. Health center data on cases of extreme diarrheas reported from the same community can be used to corroborate patterns found.

What are some successful methods/experiences of implementation of water systems to improve household health?

The list above includes many examples of successes. Some that deserve highlighting and wider replication are

- The role of water and sanitation as a catalyst to mobilize and organize communities, train leaders, and built self-sufficient participatory local development capacity at various levels (all DAPs).
- The use of the SODIS alternative technology to purify water (CRS).
- Large impacts from small interventions in areas with water scarcity, like household or community tanks for rainwater capture, community laundry facilities, and wastewater disposal systems that allow recycling (e.g., SHARE, Save the Children).
- The community fund generated by SHARE's FFW projects from participant contributions which is used by the communities for maintenance and/or improvement of their infrastructure.
- The high degree of integration of water and sanitation interventions with MCH/N and community organization efforts (all DAPs), and the use of the integrated SAS-01 model (CRS) and the Modelo Basico strategy (CARE). The latter warrant comparison to explore further integration in the future.
- The active engagement of diverse private and public sector organizations in support of joint water and sanitation interventions (all DAPs) is a success that merits more replication.

Among the successful but perhaps less than optimal practices is that of charging very little or nothing for water service. Most community Water Boards interviewed charge between \$1 and \$2 annually for service, sometimes collected in monthly payments. The funds generated are used to cover repair and maintenance expense (a success). Larger repairs are covered by getting users to agree to contribute one-time amounts. Despite the considerable buy-in achieved by this user friendly approach, it leaves the systems vulnerable to gradual deterioration for lack of preventative maintenance, and does not facilitate maintenance of a sustainable health and hygiene education program.

4.5.4 Special concerns

Improvement of infrastructure has obviously contributed greatly to community food security in some cases, as when better roads and bridges have improved marketing of crops, access to clinics, and availability of technical

assistance. Each of the DAPs has fostered infrastructure development in support of its strategy to improve food security. However, a number of concerns and observations have arisen that will help strengthen future infrastructure components. Most have to do with the use of FFW:

- FFW projects are often generated at the suggestion of the project technical staff. In most cases alternative proposals do not compete for resources. Nor do competitive processes raise community contributions and commitment to maintenance or increase community participation and buy-in.
- Instead, the impression has been that the CSs are under pressure to find enough FFW projects to meet commodity distribution goals. Rather than pulled by demand, many FFW projects seem to be pushed by supply. This can lead to make-work situations and to disinterested participants. In several cases participants indicated that maintenance of the community infrastructure being built with FFW would depend on more FFW being available in the future.
- FFW projects have not always included firm provisions for up-keep and proper operation of the improvements.
- There are no uniform standards among the DAPs for the use of FFW, so some groups receive it as an incentive for doing the same things that others do on their own (like community clean-up, building stoves, or receiving training in water system management). While the different groups are usually in different places, they may share the same municipality, markets, etc. and so may hear of the different treatment. More to the point, using FFW incentives where others do not need them probably does not represent the best practice for building self reliance and avoiding dependence.
- In most cases there was little attempt to document benefits in terms relevant to food security, so that cost-benefit comparisons with alternative investments cannot be established.

In these respects FFW projects have often not supported community development processes as fully as they might. Rather than increasing community self sufficiency, they sometimes appear to have contributed to a palpable degree of dependence, reinforcing paternalistic tendencies. In this context CARE's policy of abstaining from FFW seems to be pertinent. So is SHARE's policy of using FFW only for community improvement projects, and then only when projects are planned for implementation whether or not FFW funding is provided. Still, in the best of the cases seen, such as the support for community labor on a drinking/irrigation water system that had been conceived and funded from multiple sources prior to the arrival of the Save the Children DAP at Palquí, Uspantan, FFW seemed to combine the benefits of improved short-term nutrition with the construction of assets vital to long term food security while strengthening community organizational processes and rewarding initiative. This appeared to be because the offer of FFW resources followed the organization of the project, rather than the reverse.

There is considerable question as to the appropriateness of using FFW resources to improve individual homes and farms, such as building stoves, compost pits, gray water drainage, or closed cupboards for kitchen utensils, and doing soil conservation measures or temporary improvements like yard clean-up. FFW guidelines suggest that FFW should be used for projects that benefit entire communities.⁶ In some cases activities that benefit particular homes and farms may be more justified if posed as part of broader community efforts, for instance to reduce fecal contamination by a combination of latrination, clean-up of feces in yards and public places, and improved hygiene, food handling, and covering of clean dishes and foods in the home (in which case participants should be more aware of the broader health-related purposes than was observed). In other cases, such as the use

⁶ Determining whether a FFW component is appropriate, Section II.2 of USAID/FFP, Part II, Module 2, Commodities Reference Guide, Jan. 2006, <http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module2.html>

of FFW to support the establishment of individual parcels for export-oriented horticultural production, the justification is not easily seen, especially given the danger of introducing dependency rather than entrepreneurial spirit in an income generation project. However, according to USAID's Regional FFP Officer, there is no firm policy on these matters. If such uses of FFW are written into the proposal for a DAP that has been funded, then the CS may proceed with them.⁷

The selective provision of better stoves, corn cribs, laundry basins, and other household infrastructure has been used as an incentive integrated within some of the MCH/N activities. Usually it takes the form of rewarding food insecure families (as measured by the poor growth of their infants) that have participated particularly well.

4.5.5 Sustainability and exit strategy

The sustainability of infrastructure projects and related environmental mitigation measures seems to be generally good, based on the self interest of the communities and individuals benefited. In some cases there was strong evidence for this (e.g., the community has already organized extensive repair works and preventative maintenance efforts on its own, as on the steep road up from Raxjut, Rabinal, originally done with SHARE FFW and then damaged by Hurricane Stan). However, in some cases the arrangements for sustainability (maintenance, repair, and replacement of infrastructure) were weak, not formalized, or not known to the participants. Arrangements to collect fees or otherwise provide for continued investment are sometimes adequate but often weak or absent.

On a smaller scale, over 3,600 improved, energy efficient stoves have been built by food insecure families with inputs from the project. The cast iron heating surface needs replacement every 6 to 10 years, at a cost of about \$360. Though the stoves save firewood valued at far more than that each year, not to mention the value of health benefits and others, no provision is made to assure that families will have set aside sufficient resources to replace the heating surface when it gives out. Virtually all families interviewed indicated that they would plan to wait for another project to donate the next stovetop rather than replacing it themselves with the savings from lower fuel usage.

4.5.6 Recommendations

Please see Section 7.5

4.6 Environmental Protection and Regulations

Environmental sustainability is acknowledged by each CS as an essential factor in constructing lasting food security for participating communities. Environmental concerns were considered in planning and implementing each of the DAPs. Initially this took the form of integrating measures for environmental protection and improvement into the food security interventions (e.g., prevention of soil erosion, use of mostly organic agricultural inputs, safer disposition of human and animal feces, reforestation). In particular, purchase of pesticides has been avoided and the use of organic substitutes encouraged. Where participating farmers persist in using agrochemicals at their own expense to protect their crops from intractable pests, training has sometimes been provided on proper choice, handling, use, and storage of pesticides, and disposition of containers.

⁷ Daniel Sanchez-Bustamante, pers. comm., 10 February 2006. However, no such specific mention that would cover these cases were noted in the proposals for the current DAPs.

In the early years of the DAPs, most CS and partner technical staff were unaware of the requirements of 22CFR216 (Reg. 216), USAID's environmental regulations. This situation was corrected beginning with a training effort begun in May 2003 with a workshop sponsored by USAID for key technical staff in Coban. The participants then initiated programs within each CS to replicate this training at successive levels, covering their field staff, partners' staff, and in some cases community members. A second workshop was held in May 2004.

The training and procedures sensitized project personnel and participants to a range of environmental issues that they are likely to encounter and familiarized them with tools to analyze potential impacts, identify appropriate mitigation measures, and monitor implementation and effectiveness of the measures required. The goal is to enable them to design and implement projects in such a manner as to avoid the need for full-fledged environmental assessments, which can be costly and may include measures that are difficult to implement.

The sample of activities requiring environmental oversight seen in this evaluation was rather small. Relatively few infrastructure projects or agricultural activities that generated environmental concerns have been supported by the DAPs, and most of those were started before the Reg. 216 training took place. The short time available for this evaluation and the limited range of such projects in the communities visited did not permit a systematic appreciation of the performance of the DAPs in this area. However, an unannounced examination of IEE mitigation measures and paperwork was made in at least one case for each CS (a total of nine cases was examined). The comments below, based on these limited observations, are believed to be representative of the broader situation.

4.6.1 Regulation 216 compliance

Are CSs using the 216 environmental regulation as the principal environmental tool for planning and development of the activities contained in their DAPs?

Since the workshops in 2003 and 2004, the environmental procedures and tools based on Regulation 216 have been gradually adopted by all four DAPs. Save the Children has taken the change in institutional culture furthest, supported by an environmental consultancy in 2005. Each CS stated that it has incorporated these environmental procedures, guidelines, and mitigation measures into its project identification and approval process, and that implementation agreements with communities, local governments, and other partners include provisions for implementing and maintaining the mitigation measures.

Standard forms, checklists of potential negative effects, and menus of mitigation options are used to guide diagnosis of environmental problems and planning of corrective actions, to integrate environmental concerns into proposal review, and to carry out intermediate and final evaluations of the environmental aspects of each project. These forms are based on the standard environmental assessment and mitigation procedures provided through the USAID training. In the cases seen, documentation was available in the regional CS offices and appeared to be in order (e.g., road repair with FFW by Save the Children in Quizachal, Uspantan and by SHARE in Raxjut, Rabinal; micro irrigation by CRS in Las Trojas, Salama; soil conservation measures with CARE in Corinto, Cuilco). Assessments and mitigation measures proposed seemed to adequately address the environmental concerns typical of such projects.

Prior to 2004, when the environmental training and procedures began to be adopted, Regulation 216 was not used in planning and development of activities by the CSs, with the some exceptions where individual staff members had previous training. However, mitigation measures similar to those that are required under Reg. 216 can be seen in many of the older projects (e.g., erosion protection measures and reforestation along the road built with FFW from SHARE at Taltimiche, Comitancillo). This indicates that environmental concerns were present before the training, though less formalized and universal in their application than now. In addition,

all the DAPS have abstained from the purchase of pesticides, raised awareness of natural soil improvement and pest control measures, promoted more efficient and sustainable use of natural resources like wood, soils, and water, and fostered proper disposal of trash and the use of organic waste for compost. The process of identifying and mitigating environmental effects appears to have increased the understanding of the benefits of environmental protection by the participating families. However, a deepening of this understanding is required for long term sustainability of the ecological services in the project areas. For example, expanding the knowledge of best practices on issues such as protection of the water source and management options within a watershed is critical to any of the micro irrigation projects.

What is the level of knowledge of the existence and use of the IEE on the programmatic actions on each CS?

The CS technical staffs and those of their partners seem to be clear on the need for the IEE and on how to apply it and follow up. This is exemplified by some of those in the MCH/N area, which is eligible for categorical exclusion but where initiatives to assure proper disposition of used syringes and other waste have been taken by some CSs. In contrast, at times the environmental tools seemed to be used rather mechanically, followed more in letter than in spirit, as when technicians speak of mitigation measures as something that fulfills a requirement and allows them to proceed with their work, not as a way of improving the sustainability of that work.

Both the technicians and some participants were able to explain the benefits of sustainable agricultural techniques and of mitigation measures to prevent erosion around infrastructure projects, unpleasant and unsanitary latrines, contamination of potable water, and other common environmental problems. More sophisticated environmental concerns, like the potential effects of introducing invasive species (e.g., *Tilapia*), disturbing archeological deposits, or reduced stream flow caused by water and irrigation projects, were foreign to most. Overcoming this limitation will increase the long term success of projects.

What is the level of fulfillment of the recommendations contained in the IEE for each CS?

In most of the nine cases seen, compliance with the recommendations seemed to be complete. However, in one case (road repair in Quichazal), the measures to prevent erosion around drainage channels that take water off the road and release it onto steep roadside slopes of compacted fill appeared entirely inadequate to handle the runoff of a large storm. The concrete linings to protect the outlets of the drainage channels were too small. The technician in charge explained that this was due to a very limited budget for materials like cement associated with a given amount of FFW, or for inspection by consulting engineers (a reminder that the CSs are under pressure to maximize the amount of food distributed per unit of monetization). This lack of resources may also limit the implementation of mitigation measures in other projects. CSs should ensure that mitigation measures are properly designed, implemented, and inspected by personnel with appropriate qualifications, and provide for the required balance between FFW and monetized resources to fund them.

When asked to estimate overall compliance with Reg. 216 across the DAP, CARE estimated that 70% of mitigation recommendations have been properly fulfilled to date, while SHARE estimated that its income generating groups comply with about 60%. Save the Children reported having hired a consultant in 2005 to assess the level of compliance with the IEE recommendations, finding that most of the conditions established had been met. The candor of these statements suggests an interest on the part of the PVOs in dealing openly and objectively with situations where there is room for improvement. Where community groups that have assumed a commitment to comply with mitigation measures fail to do so, the use of funds programmed for that community can be restricted, generating pressure to complete the obligation (e.g., SHARE).

Have the CSs developed, and are they using environmental tools (guidelines, checklists, etc.) to fulfill the recommendations of the IEE?

Yes, they were using those environmental tools. See the answer to the first question, above. In addition, each CS has taken initiatives to enhance the toolbox. CARE has developed social, economic, and technological analyses that complement the IEE approach to determining environmental feasibility. CRS has implemented a system of randomized checking on technicians' use of these tools and training of community members in related topics, including site visits. SHARE has incorporated these tools in the procedures manual for its FFW program. Save the Children has developed a set of tools to verify compliance with IEE recommendations in the case of road rehabilitation, adapting practices from the USDA Forest Service manual on engineering of low volume roads. It would be useful for the PVOs to share these and other advances in Reg. 216 compliance among themselves, making the materials available to all and developing a set of consistently used best practices as a means of integrating Reg. 216 across all projects.

Do CSs have their own environmental monitoring systems to support environmental regulation compliance?

This varies among the CSs. Save the Children has developed systems to monitor compliance with environmental regulations; these are fully integrated with its M&E system. Based on a 2005 study of its degree of compliance, Save the Children also designed and implemented an environmental management plan to systematize environmental monitoring, mitigation of impacts, and planning for environmental restoration actions using FFW. SHARE has also developed systems to monitor compliance with mitigation requirements in its projects. CRS and CARE do not have their own environmental monitoring systems, but their overall M&E systems include monitoring of some environmental activities in health, infrastructure, and/or agriculture. Again, regular opportunities to share experiences, methods, and material among PVOs would be helpful. The mechanisms and materials developed for monitoring and mitigation are USAID property and should be jointly reviewed and evaluated as potential standard operating procedures for future projects.

4.6.2 Environmental issues in MCH/N activities

Health and supplemental feeding are explicitly exempt from Regulation 216. However, disposal of medical and other waste in MCH/N activities is being addressed through provision of training, appropriate containers, and disposal mechanisms (e.g., CRS).

4.6.3 Environmental issues in income and agriculture activities

All four CSs advocate organic agriculture, perhaps too much as a matter of faith—such policies should be based on results, as reflected in data on productivity, environmental effects, etc. Judicious use of chemical fertilizer can improve the incomes and security of some food insecure people. Regulation 216 restricts pesticides, though their use within proper IPM programs is possible. Proper use of chemical fertilizers can also be managed within the existing framework of Reg. 216 procedures.

Regulation 216 prohibits impacting endangered or threatened species, or critical habitat. Some of the DAPs help farmers to stock fish ponds with tilapia, even though this aggressive, predatory African fish will threaten native fish species if released into streams (and the risk of escape is high in the event of storm flooding). There are proven mitigation measures; CRS' partner CARITAS stocks ponds with sterilized fry of the less-aggressive red tilapia. Mitigation measures found effective in other USAID projects should be disseminated and applied before further fish culture is encouraged. These include providing fingerlings only to producers who have implemented all mitigation measures, control of reproduction through simple measures for manipulating sterile males, etc.

Some projects encourage interest groups to grow cabbage, which nearly always attracts the diamond-back moth (*Plutella xylostella*). Farmers quickly turn to insecticides to control the moth. Project agronomists have anticipated the problem and are recommending Bt (which can be used in organic farming) and the home-brewed chemical 'sulfo-calcium,' now widely used in Central America, especially by NGOs. So far, there are no reported problems with *Plutella*, and the team saw little *Plutella* damage in the field, but the CSs should have a detection and response mechanism in place before future projects are implemented. The DAPs have also promoted chili-garlic-onion sprays as botanical insecticides (for whitefly and *Plutella*, among others). We are skeptical of these home remedies, but the farmers say they work, and there are quite low incidences of insect pests in the fields inspected (see for example, Box 28 Growing Cash, Box 32 Corinto, Box 21 Good Gardens). However, most fields had few beneficial insects, suggesting that either farmers are using insecticides (which they generally deny) or that the home remedies also kill or drive away the natural enemies of insect pests.

Some project activities are models of environmentally-sound agriculture, e.g. pulping coffee with very low water helps avoid polluting streams (see Box 12, Coffee Dryers). Drip irrigation saves water and reduces the risk of plant disease, thus potentially reducing the use of fungicides while conserving the soil (see Box 21, Good Gardens). These projects encourage sound soil management. Farmers in many project sites use live barriers of foxtail grass to control soil erosion. All of the DAP livestock activities (e.g. pigpens) use manure as garden fertilizer. Such methods of sustainable agriculture should become the norm, not the exception.

4.6.4 Environmental Regulations, Democracy

Better organized communities and municipalities are able to deal more effectively with environmental protection needs and mitigation requirements. Integrated local development agendas invoke environmental sustainability as a basic factor in the generation of food security and economic well being. Environmental regulations are seen by well organized entities as tools, not impediments.

In future projects, a key question will be to what extent are the CSs incorporating these concepts into their training and orientation activities with municipal and community organizations. Implementation agreements should be encouraged throughout all levels of government, and with participating families. That will allow for equitable application of the accepted guidelines and will encourage local governments to budget for the application of these measures.

4.6.5 Environmental Regulations, Infrastructure

These are covered in the introductory section on Regulation 216 compliance.

4.6.6 Special concerns

Each CS must assure that partners fully comply with environmental requirements, just as with other policies and goals of the food security project. Sometimes it was said with a shrug "that happens because local partners are implementing." It would be more valid to say "that happens because we have not provided our local partners with sufficient training, guidance, and supervision." The CSs have responsibility for seeing that the guidelines established for these projects are properly implemented.

4.6.7 Recommendations

Please see Section 7.6.

4.7 Monetization and Complementary Resource Mobilization

4.7.1 Monetization

Monetization is handled by a consortium of the four PVOs led by CRS. Each member has an active part in decision making on which products to monetize, amounts to sell, and methods of negotiation. A fee of 1% is levied on amounts realized to cover the operating costs of the consortium. Prior to FY 2003, yellow corn and soy bean meal were monetized; since then only CDSO (crude degummed soy oil) has been used (Table 4.6.1.a). Bellmon analyses are carried out annually by consultants hired alternatively by USAID and by the consortium in successive years. McIntyre (2005) is the most recent.

Table 4.6.1.a Volume (MT) and Value (\$\$) of Title II Food Aid in Guatemala							
	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	Totals, MT	Value (2006)
For Distribution (MT):							
<i>CSB</i>	4,030	3,922	3,126	3,280	4,190	18,548	\$ 6,677,280
<i>Bulgur</i>	140	402	402	140	450	1,534	\$ 337,480
<i>Rice</i>	3,970	4,127	4,021	3,260	3,140	18,518	\$ 5,555,400
<i>Veg Oil</i>	1,390	1,500	1,728	1,140	1,590	7,348	\$ 6,613,200
<i>Pinto Beans</i>	2,070	2,104	1,950	1,770	1,940	9,834	\$ 6,637,950
For Monetization (MT):							
<i>SBM</i>	17,570	-	-	-	-	17,570	\$ 3,953,250
<i>Corn</i>	25,640	-	-	-	-	25,640	\$ 2,692,200
<i>CDSO</i>		7,550	11,410	15,090	15,520	49,570	\$ 27,015,650
TOTALS	54,810 MT	19,605 MT	22,637 MT	24,680 MT	26,830 MT	148,562 MT	\$ 59,482,410
% Monetization	79%	39%	50%	61%	58%	62% (MT)	57% (\$\$)

Sources: Volume data from USAID/Guat (J. Asturias); 2006 value in commodity prices plus shipping costs from SHARE (L. Hernandez)

A number of difficulties that have arisen in the monetization process are derived from the structure of the Guatemala markets and from the relatively complicated approval and procurement processes of the Title II food aid program. This has resulted in some uncertainty as to whether the current monetization process can reliably produce the level of proceeds required. According to the CRS monetization manager, there has never been an instance in which proceeds sufficient to meet the needs of the DAPs were not available. Nonetheless, comments on the need to upgrade the monetization process were heard from project managers in the field. Much of this probably reflects a lack of information on the situations faced by the monetization program and on what has been done to resolve them.

Among the problems facing the Guatemala DAPs are the following:

- Limited markets for the commodities available for monetization under the Title II program (McIntyre 2005), with one or a few players in each product area, reducing the number of qualified buyers and the potential for strong competition.
- Restricted financial capability: many firms are not large and experienced enough to easily provide letters of credit and to satisfy other requirements, further limiting the pool of potential buyers.

- The procedures required by USAID/FFP, which complicate the transactions and demand extra time and expense from the buyer. Formalities such as contracts and letters of credit, for example, are not required by other suppliers.
- The uncertain availability of Title II products during several months each year, due to the USG's annual budget process, with delays of up to several months undermining the stable flow of commerce and limiting the ability of the consortium to become a preferred, year-round supplier. For instance, the long delay in approval of the FY 2006 budget, during the season of peak demand for CDSO, has meant that instead of monetizing 16,000 MT as planned, it will be possible to sell only 9,000 MT during FY 2006.
- Non-approval by FFP after FY 2002 of what would be the most competitive monetization products, soy meal and yellow corn, because of their use in animal feeds. (The CSs have argued, unsuccessfully, that those feeds produce the eggs and milk essential to the food security of most Guatemalans.)
- Prejudice on the part of some possible buyers about the potentially low quality of "donated" products, reinforced by stories about quality problems in the past (which though small and quickly rectified left questions in the minds of some dominant local industrial groups).
- The start-up and infrastructure costs implicit in adopting a strategy to build the capacity of many smaller entrepreneurs to buy smaller lots of one or more products.

A continuing process of market exploration, including sales efforts targeted at numerous food industry firms, has not succeeded in developing a situation in which competitive bidding can be established for a product that FFP will approve. This has led to the use of CDSO in trades negotiated with a single large buyer (public offerings are made, but only that one buyer responds). The negotiated commodity prices are based on international market levels (e.g., the price on the Chicago Board of Trade, the Argentine Cereal Board, etc., 15 days before delivery). A factor to compensate the value of transport and other transaction expenses is added to the international price levels; this factor is negotiated to reflect the realities of the local market and the complication of dealing with FFP regulations. Discounts run in the 1% to 1.5% range. This form of monetization is not seen as an ideal solution by the CRS monetization manager, but rather as the one which best meets the need for the moment. Other options continue to be explored.

This situation of dependency on a single buyer and a single product entails a good deal of risk. If for any reason the relationship with the sole supplier were to falter or if CDSO were to become unavailable or to lose the approval of FFP, the DAPS could be left high and dry.

Among the alternatives that should be considered are the following:

- Further exploration of new products, even if for smaller volumes, and adoption of a market basket approach that includes a combination of commodities (McIntyre 2005).
- With the withdrawal of Title II programs from the rest of Central America, it may be possible to explore third country monetization.
- Development of the capacity of small and mid-sized buyers, including training in the procedures needed to bid and fostering easier access to letters of credit. This may not be feasible with some commodities, but may be with others. Higher operational costs may be offset by better returns and lower levels of overall risk to the consortium.
- Given that large international grain companies like Cargill and ADM are active in Guatemala, it may be feasible to engage one as the agent for monetization sales. They could also handle third country sales (McIntyre 2005).

- In-depth review of the current monetization programs and potential alternatives by experienced traders and monetization experts (from the home and field offices of the international PVOs or consultants) to develop a plan of action.

The CSs have attempted to change the monetization situation in the past, but have run into serious obstacles. However, the challenge will be to overcome those obstacles, as has been done in other places with similarly daunting difficulties.

Are the uses of monetization proceeds the most appropriate ones to support the goals of the DAPs?

Only appropriate uses were observed. Some of the recommendations in Section 7 suggest improvements that may lead to even better use of resources in support of DAP goals. The PVOs affirm that all monetized proceeds are used exclusively to defray DAP expenses. An attempt to audit the uses of monetized resources was not within the scope of this evaluation. However, the evaluation team saw no reason to doubt that the PVOs' planning processes, monitoring and evaluation procedures, and control systems assure appropriate use of the monetization proceeds.

According to FFP requirements, is the percentage of the food aid which is monetized appropriate to the percentage used directly for MCH supplementary feeding or Food for Work?

As shown in Table 4.6.1.a, the level of monetization as a portion of total commodity imports in the FY 2002-FY 2006 period has varied greatly from year to year. On average it is 62% by weight and 57% by value, based on current (February 2006) commodity prices and shipping costs. This is approximately double the monetization level of 30% found in the FFP guidelines. It also exceeds both the level of 40% suggested by USAID sources as acceptable for the current DAPs and that of 50% suggested as a target for the future MYAPs. It is also higher than the levels reported for monetization by the individual PVOs in response to a questionnaire (Table 4.6.1.b). (This discrepancy was not resolved. Year-by-year data on monetization levels for each PVO were not available.)

Table 4.6.1.b % Food Aid Monetized, as Reported by PVOs					
	CARE	SHARE	CRS	Save the Children	Weighted Average
% Monetized	60%	32%	50%	40%	45%

Source: PVO answers to final evaluation questionnaire.

4.7.2 Inland Transport, Shipping, and Handling (ITSH) Funds

DAPs in other countries like Honduras currently use ITSH funds to cover transport and handling costs now paid in the Guatemala DAPs by community contributions. While ITSH resources are not always available, accessing them where possible would free up the community contributions for uses that strengthen community capacities and support sustainability of the DAP food security efforts. Home offices of international PVOs may object that ITSH funds generate no overhead; but then, neither do the voluntary quotas now being used.

4.7.3 Complementary Resource Mobilization

The DAPS have mobilized an impressive amount of counterpart contributions and complementary finding. Unfortunately, much of this goes unrecorded. Table 4.1.b, Estimated LOA Program Value, shows that the amount of non-USAID support recorded exceeds \$9.1 M, about 10.7% of the \$85.6 M available for field activities. Much of this represents contributions from the Guatemalan government to three of the CSs.

Substantial additional resources are mobilized by each CS but not always attributed to the DAP program values. For instance, SHARE shows about \$3.3 M in cash and in kind contributions from participants annually in its annual expenditure report to USAID (Table 4.6.2.b), as much as the amount available for development activities from its USAID DAP funding (\$3.2 M; Table 4.1.1.c). If the other three CSs generate comparable amounts, this would amount to \$80 M in LOA resources, about as much as the USAID/FFP funding. Components include:

- Local materials and labor contributed in kind to community projects. For example, CRS suggests multiplying the days worked per month by the number of monthly FFW rations distributed and the minimum daily wage. For all three DAPs that use the FFW mechanism, this would come to over \$12 million over the FY 2001-2006 period. And that does not include the many contributions of time and labor made in non-FFW activities.
- Voluntary contributions of food recipients to cover local transport and distribution expenses. At an average of about \$1.25 per month for 72,262 recipients over an average of 72 months (Tables 4.1.a and 4.1.b), this supposedly insignificant fee amounts to about \$6.5 million.
- Repayments (partial or full) of loans to establish rotating funds. CARE has agriculture/income participants repay the value of materials advanced (like seeds, fertilizer, etc.) to establish a rotating credit fund managed by a local committee. Similarly, SHARE has interest group participants repay 25% of the materials provided. SHARE has FFW participants contribute about 10% of the value of food received to a similar fund under community management. In SHARE's case these mechanisms generate nearly \$1 million in counterpart funding over the life of the program. In both cases the rotating funds contribute significantly to sustainability of food security activities.
- Provision of buildings for food storage, training, and MCH/N activities. Many communities and some municipalities provide physical spaces as counterparts. This could be increased through a competitive approach to allocating project resources. Their fair rental value was not available, but if it averaged \$10 monthly in 1600 participating communities over 72 months it would exceed \$1.1 M.
- Municipal contributions to infrastructure projects (including land acquisition), health and democracy activities, agricultural extension, and participatory planning efforts.
- Other projects located in DAP communities or municipalities that support food security, like Save the Children's GDA-funded education and micro credit projects, or the Ministry of Health's (SIAS) municipal health service purveyors, with which some DAPs have established cooperative agreements. Save the Children estimates that its complementary projects are beginning to put over \$500,000 yearly into food security-related activities in DAP communities, and that this will help sustain momentum after the DAPs close.

These additional contributions could at least triple the \$9.2 M reported as non-USAID inputs to the DAP program values. Where they are not being tracked, there is little motivation to expand them. Ironically, many of them are precisely the sources most likely to support sustainability.

Two of the PVOs, CRS and SHARE, presented estimates of yearly complementary funding by category. These are shown in Tables 4.6.2.a and 4.6.2.b. In both cases, the amounts shown are substantially higher than those reported as part of overall Program Value (Table 4.6.2.b). They also may not include all the categories listed above. CRS shows a level of \$575,000 annually in complementary funding, based on community contributions of labor and materials, time of program volunteers, voluntary contributions for transport of food, and municipal contributions of materials, skill labor, and land for infrastructure projects, as well as institutional funds and Guatemalan government (GOG) contributions.

Table 4.6.2.a CRS Counterpart & Complementary Funding				
FY	Funds Generated in Field	Institutional / Other Donors	Guatemalan Government	Totals
2001	Not available			
2002	Not available			
2003	\$ 139,740	\$ 161,729	\$ 286,631	\$ 588,100
2004	\$ 301,484	\$ 432,601	\$ 256,614	\$ 990,699
2005	\$ 120,000	\$ 340,007	\$ 263,158	\$ 723,165
2006	\$ 146,842	\$ 347,238	\$ 263,158	\$ 757,238
Total	\$ 561,224	\$ 934,337	\$ 806,403	\$ 2,301,964
Average per year	\$ 140,306	\$ 233,584	\$ 201,601	\$ 575,491

SHARE shows \$4.6 million annually in counterpart and complementary funding, including the voluntary contributions of food recipients, the time of volunteers, local labor and materials on projects, funds from other donors and projects (including other USAID funds), institutional funds (from subscriptions, donations, fees for services, etc.), and GOG contributions.

Table 4.6.2.b SHARE Counterpart & Complementary Funding				
FY	Funds Generated in Field	Institutional / Other Donors	Guatemalan Government	Totals
2001	\$ 1,837,067	\$ 98,993	\$ 577,161	\$ 2,513,221
2002	\$ 3,290,201	\$ 484,270	\$ 853,184	\$ 4,627,656
2003	\$ 4,189,702	\$ 299,197	\$ 938,520	\$ 5,427,419
2004	\$ 3,826,919	\$ 553,165	\$ 872,723	\$ 5,252,806
2005	\$ 3,456,897	\$ 942,982	\$ 847,946	\$ 5,247,826
2006	Not available			
Total	\$ 16,600,786	\$ 2,378,606	\$ 4,089,535	\$ 23,068,927
Average per year	\$ 3,320,157	\$ 475,721	\$ 817,907	\$ 4,613,785

Interviews with CARE and Save the Children indicate that they operate with comparable levels of outside contributions to DAP activities but are not set up to easily track these contributions. CARE reports receiving funds from the GOG, CARE USA, voluntary contributions of food recipients, and repayment of loans of materials to agricultural project groups. It uses in-kind inputs from participants in the establishment of water systems, the Ministries of Health and Agriculture, two universities, Peace Corps and Mercy Corps, municipal governments, and local partners. Save the Children has not gotten GOG funds but used institutional funding, voluntary contributions of food recipients, and in-kind contributions from local governments, USAID, and the communities.

4.7.4 Recommendations

Please see Section 7.7.

5 Monitoring and Evaluation

The DAPs keep numbers on all activities, at all levels. Even project promoters have lists of the people who have latrines, for example, and each rabbit hutch has a piece of paper to track the rabbits. Project staff members file reports with their supervisors, who file reports with the CSs, but some NGO staffers have not seen reports submitted by the PVOs to USAID. The reports tend to be quantitative lists of actions taken, with less scope for reflection. The extensionists said that the biggest value of the reporting was that it gave them a chance to see what they were doing, and to identify weak communities. All the extensionists know off the top of their head how many families they work with, in total and in each of the five or six villages they visit, and which activities each family does; without M&E they would not know this.

The numbers reported are probably generally trustworthy (so many rations distributed, so many families visited etc.). Field visits give management a chance for quality control. We were with one surprised agricultural supervisor when he visited a field extensionist who had taught families to plant raised beds running *downhill*, rather than with the contour of the slope. Similarly, a health supervisor found the local promoter to be miscalculating the expected growth of a group of children. However, these were exceptions to the rule.

Besides paper reports, supervisors hold monthly meetings with their staff, and visit them in the field. Numbers are written down, but most qualitative observations are not. For example, CARE/Huehuetenango had a system called ‘homogeneous groups’, where each family was encouraged to conduct the same activity. In meetings and on visits, extension agents told their supervisors that the system needed to be made more flexible (e.g. each family might not want to grow the same amount of potatoes, in exactly the same way). CARE now allows more flexibility within groups, which suggests that quality control is working, albeit in verbal form.

Health workers hold regular meetings for situational analyses at the municipal level and sometimes in the participating communities. In the best of cases—when linked to the municipal health services and involving the community health committees in analysis of their own monitoring results—this tends to build sustainability. However, sometimes the data are analyzed by technicians without fully involving community members nor in some cases the municipal-level health providers. Where the community health committees are involved, there may be more focus on the situations found than on the reactions that they require. Thus health committees may learn to observe when a child has not grown satisfactorily for two months in a row, and how to report that fact, but not to investigate what is actually happening to that child and its family (e.g., illness? crop failure? migration? poor feeding practices?) and to use their initiative to develop solutions.

The M&E system of each DAP tracks indicators related to participation and organization. However most are oriented to quantifying participation and lack indicators for organizational quality and effectiveness (an exception is SHARE’s indicator on percent of groups that achieve 60% of their annual planned results). The CRS system for classifying the status of community development, ending with “qualified to graduate” is a good example of what can be done with qualitative criteria and measurement systems.



Onion beds running *downhill*. Fortunately, problems like this are not common in the project

One concern is that monitoring tends to focus on quantitative data on processes and products (number attending meetings, number of stoves installed), rather than on quality of outcomes. Indicators and analysis often do not provide flexible, updated information for management level decisions and strategic program guidance. For example:

- CRS and CARE are not directly tracking their main impact indicator, height for weight (as a proxy for chronic malnutrition), on an annual basis (Save the Children tracks this each six months, SHARE annually). Management has no feedback on this key result (and others) until midterm and final surveys are made each two to three years. Admittedly height for weight is a difficult indicator to measure and one which varies little in response to interventions, especially when impact on the broader population is measured. But creative design, sampling, and analysis could provide better feedback to management and to the donor on the strategic impact of the DAP.
- Monthly data on child growth (and on weight for age) are taken, but not analyzed in function of variables that are targeted for change by MCH/N interventions. For instance, data on the degree of hygiene behavior change in households is collected, but not correlated with the growth rates of children from the same families to establish the impact of the behavior change program.
- Similarly, data is taken on diarrheas reported for children in the MCH/N program, but no comparison is made between households whose hygiene behaviors have changed more and less favorably, nor between infants of those mothers who breastfeed more and less exclusively.
- When the heads of the M&E operations of three DAPs were asked to come up with comparative analyses of this sort (e.g., comparing growth of children in communities with and without certain interventions, or in families with and without particular behaviors or resources), each agreed that the data were available and that the results would be relevant and even exciting—but none was able to produce them, even for small samples, in the several weeks available. While this undoubtedly reflects heavy work loads, it also speaks poorly of the institutional capacity to develop innovative management-level inputs.

A second area of concern is the paucity of empowerment at the community and municipal levels in monitoring and evaluation. Self sustaining community monitoring of health, hygiene, child nutrition, and child growth has been established seldom if at all in these DAPs. Its feasibility and usefulness for sustainability of water, sanitation, and MCH activities has been shown elsewhere in Central America, as well as farther afield.

If sustainable food security means that communities become self-reliant, within their municipal and other institutional frameworks, it requires the capacity to track and analyze evolving situations, and to identify risks and options, using available resources and their own skill and initiative. Such skills and initiative need to be cultivated; the M&E area offers many opportunities to involve local committees and their municipal counterparts in hands-on practice.

In summary, the M&E effort seems to be adequate, but weaker than would be ideal. It is too often carried out mechanically, with little concern for providing timely, in depth feedback to managers at each level, nor for discovering and showing off the good results of the many DAP activities. This can lead to data being taken for purposes unclear to those taking and storing it, undermining motivation. It also stifles healthy curiosity about the outcomes of the activities being tracked. And it does not translate into capacity-creating initiatives at the community and municipal levels. In short, M&E could use some revitalization, highlighting its strategic role.

6 Cross-cutting issues

6.1 Site Selection

All of the DAPs are working in very impoverished communities in the target municipalities, which is appropriate. Selected municipalities were known to be among the poorest in the country, to have high rates of malnutrition, and to be highly food insecure because of high levels of migration, persistent effects of the civil war, and/or recent natural disasters. These DAPs were formulated in the post-Hurricane Mitch period, and siting adjustments made to some—particularly those of CRS and SHARE—responded to changes in the food security situation brought on by drought, famine, and Hurricane Stan. In some places the presence of previous or complementary programming on which to build was an important site selection factor. A number of sites were holdovers from the previous DAP (Save the Children is the exception); some communities have been receiving food distribution for the better part of a decade, with no exit strategy in place.

The evaluation team saw the greatest apparent food security advances in those situations with prolonged DAP presence and multiple interventions, particularly where the areas of agriculture/income and democracy had been strengthened.⁸ But it was not clear that the Title II resources were being most efficiently used in those cases. The lack of a framework of exit strategies and sustainability criteria made it difficult to judge whether such a concentrated, sustained effort at a given site was necessary to attain lasting food security, or if all or part of the resources tied to that site might be more suitably redirected to others.

Often the DAPs lacked access to adequate data to assess relative food insecurity among the dozens of similarly food insecure and vulnerable communities and municipalities. In this situation, other factors often become decisive, such as the presence of proven partners and the existence of previous programming on which to build. But this carries the danger of fostering dependence and paternalism, as one project phases into the next at the same sites. It could also lead to less than optimal use of resources in pursuit of FFP goals. The introduction of competitive processes, in which communities have to submit proposals that reflect both their level of food insecurity and their degree of commitment to improvements that build lasting food security, could enhance the results of the selection process, facilitate implementation, increase flexibility in the face of change in the food security panorama, and make for more effective use of the Title II resources.

There may have been some loss of efficiency when CSs selected sets of municipalities spread out across the country, particularly in regard to travel costs for regional staff to support programming that is four to five hours away. Staff members from Guatemala City have spent much time on the road to reach far-flung municipalities as well. There is overlap of CSs in some municipalities, but not in the communities. They have carefully worked out who is covering which communities and coordinate some efforts at the municipal level. Generally communities within municipalities shared by two DAPs are divided rationally between them, not interspersed.

The loss of efficiency resulting from geographic overlap and dispersed operations may be compensated for by other factors. For instance, it may be more costly to abandon the investment accumulated in a well trained local

Survival of the Most Vulnerable

The term “competitive” must be taken with a grain of salt. Rather than survival of the fittest, the DAPs aim to reduce the food insecurity of the most vulnerable.

SHARE has used a “competitive” selection process in its last two DAPs, though it avoids using that term. Communities submit proposals to SHARE’s local partners to be admitted to program participation. Selection criteria include levels of need (poverty, malnutrition) and commitment.

This has worked well; psychological contracts as well as written agreements are established. Communities selected are both highly food insecure and willing to work to overcome that situation. Any not fulfilling their commitments are deselected.

⁸ However, data correlating complementary programming with reduction in malnutrition, offered by two CSs, was never delivered.

partner, working within a well conditioned institutional and social milieu, than to continue to pay the additional travel costs implicit in staying. The potential loss of social, institutional, and human capital could outweigh the disadvantage of dispersion. However, in those cases an argument to that effect should be made.

Site selection for the MYAP should be rationalized in terms of how it focuses on places with the highest levels of food insecurity, how it will contribute to flexibility, sustainability and the graduation of communities, and how it represents an optimal geographic division of labor. If target communities are continued from one DAP into another, if the areas covered are disjunct or there is significant overlap between CSs, then it should be made clear what makes these solutions the best alternative.

6.2 Empowerment of Communities

All of the CSs either form committees or use existing ones to organize program activities at the community level. There are health committees in all communities, some of which also have responsibility for food distribution and growth monitoring. In some cases there are separate committees for food distribution, and at times still others for growth monitoring, food for work, and/or water and sanitation. Sometimes there is a direct link to the COCODES with representatives deliberately included in the COCODES; in other cases, a committee member may happen to also be in COCODES. In most communities visited, there was no structured representation, nor any planned framework to share and discuss health and nutrition data or food distribution information with the COCODES. This undermines the development of COCODES as a community organization that is capable of sustaining key DAP activities and promoting lasting community food security into the future.

Of concern is the finding that most of the committees are only task-oriented towards their role in food distribution, growth monitoring, or vigilance of environmental hygiene. If they make plans, those are to carry out pre-determined activities of the project. CRS, Save the Children and CARE have involved some of their communities in doing analysis of health and nutrition problems. The methodology used was not sufficient to mobilize the committees to become proactive in seeking solutions to the needs and problems identified. Other than CARE, and to some extent CRS, the projects have not devoted effort to enabling the committees to make budgets, plan activities, mobilize resources, etc. More could be done to empower the committees and to challenge them to assume responsibility for long term community food security. This should not be understood as a criticism of the work of those DAPs that were not allowed to include such tasks in their design, but rather as an opportunity for the Title II program in the future.

Opportunities to build community self-reliance are sometimes missed, as when solutions are provided in top-down style rather than building the community's capacity to work out its own solutions (i.e., giving away fish rather than teaching how to fish). This starts with not involving the community and its organizational structures—the committees—as equal protagonists, equal partners in the quest for food security. Instead, a prearranged set of activities is offered, too often on a take-it-or-leave-it basis. Such benefits are perceived more as gifts than as returns on the community's efforts to improve itself. This can include not only the food aid but also such things as information on health and children's growth (unless done via community self-education and self-monitoring processes), marketing plans (unless created with the active participation of producers' groups that learned by doing), and resolutions to conflicts (if decreed by the technical staff instead of being developed dynamically). Benefits that are products of a community's own efforts are much more sustainable than those that depend on continued outside inputs. Unfortunately, overtaxed DAP staffs and partners often lack the time and training to induce problem solving capacity rather than handing out solutions.

6.3 Integration

In general, the integration of components was much better in these DAPs than in previous Title II programs in the country where components were applied separately to different municipalities or even different Departments. In all cases, there is now geographic coincidence of agriculture, income generation, infrastructure, and/or democracy activities with MCH/N. However, it is unfortunate that there were insufficient resources to support those complementary activities in all the municipalities where food distribution and MCH interventions are carried out (only 26% of the families participating in the DAPs are involved in agricultural/income generating activities, Table 4.1.a). Where all three kinds of interventions were well integrated, synergies were generated that increased impact and the prospect of sustainability. For example, families with improved agricultural production and incomes no longer needed supplementary food distribution nor to migrate seasonally, while well organized and empowered communities seemed capable of continuing to monitor of the health and growth of small children. At the same time, more prosperous families that do not need to migrate are able to participate more effectively in organizations that improve community health, child nutrition, education, and other components of food security. To the extent that sustainability is a goal, the need to increase the ratio of monetized to distributed commodity resources is clear, to permit better coverage and integration of those “complementary” components.

There is some concern about whether the activities chosen for agriculture or income generation will actually have an immediate impact on the nutritional status of children. Some agricultural activities may not improve the family’s access to food nor economic security for a good while into the future (e.g., planting coffee). Others, such as vegetable production, grain storage, and small livestock husbandry will have an immediate impact. Combinations of such activities might be propitious for sustained improvements in food security.

Another concern is that participants in the income generation activities were sometimes older people rather than the parents of small children participating in the MCH program. In other cases, the participants in income generation groups had been participants early on in the project, but their children were no longer young enough to benefit. Insofar as this does not preclude the participation of families with younger children, this is a good way to maintain contact with former MCH participants and to unify the community in its food security efforts.

The CSs have not analyzed whether the overlap of agriculture/income or democracy interventions with MCH/N in a community has more impact on nutritional status than does the MCH/N intervention alone. Since the DAPs have data to do this analysis, the evaluation team has suggested that they present comparisons of impact for MCH/N-only versus MCH/N plus agriculture, income generation, infrastructure, and/or democracy.

6.4 Sustainability

Sustainability – *The Title II program has shifted its emphasis from feeding people in the short-run to trying to improve the food security of the more food insecure populations over the medium and longer-term.* (FFP Strategic Plan, 2006-2010, p. 12).

Sustainability is a complex, many-layered topic, easy to invoke and difficult to measure. In the context of the DAPs, a number of approaches have been incorporated by the different CSs. All involve building capacity:

- Induction of lasting changes in behavior and attitudes is done to different degrees by all DAPs, from health, hygiene, and infant nutrition to soil conservation, market-oriented cropping, community organization, self reliance, and problem solving. This generally involves not only training but also hands-on experience and learning by doing.

- Creation of feedback systems to assure continued compliance with key behaviors and renewal of awareness and skills as required, such as community-led health education and monitoring systems, health and agricultural promoters embedded in the communities, links to locally available sources of technical support and market information, and others. This area is generally weak with some bright exceptions.
- Accumulation of critical capital assets: physical (e.g., water & irrigation systems), human (e.g., trained leaders and skilled promoters), social (e.g., functioning networks, links to markets, etc.). All CSs support this through a variety of mechanisms, but many of the more expensive but critical infrastructure needs (e.g., micro irrigation systems) are not addressed.
- Building local partners that can continue to support communities—e.g., CRS and SHARE work through local partners in each region or municipality. The CRS link to Caritas and the Catholic Church has great potential for sustained support of food security.
- Involving seasoned local institutions in food security: enabling public sector agencies to assume their responsibilities in support of food security is a good way to foster sustainability, based on the continuing flow of government funding. CARE does this through local governments, municipal-level institutional networks, and improved grassroots organizations that combine to enhance food security.
- Strengthening democratic processes: all CSs support improved participation, organization, and empowerment as sustainability mechanisms; all have dedicated resources to improving these in different ways despite USAID resistance to direct funding for them.
- Provisions for on-going access to credit: Save the Children and CRS have used DAP and other donor funds to establish access by income generating projects to micro credit programs (run by Genesis Empresarial and FUNDESOL respectively). On a smaller scale, SHARE and CARE have established rotating community credit funds run by interest groups.
- Links to local and outside networks and sources of support: each of the CS uses this to some extent; for example, CRS pioneered ties to the CIAT agricultural marketing technology network and has shared those ties with the others DAPs, while CARE includes building municipal institutional networks and establishing links to them as an explicit part of the FORTALEZA strategy.
- Providing for self-replicating processes: little emphasis was observed on this approach, in contrast to DAPs seen elsewhere. Communities, interest groups, and individuals were not generally trained or motivated to pass their skills on to a circle of peers who would replicate processes supporting food security in neighboring ambits. This also limits the self-training and re-training capacity of existing committees.
- Exit strategies and graduation criteria: only CRS has explicitly developed these, though still without putting them fully into practice.

Despite the number of DAP elements that can be said to support sustainability, these are often not woven together sufficiently tightly to assure that key practices and achievements survive. The overall impression of the TANGO team was that the probability of maintaining food security gains in most of the 1,600 communities and 52 municipalities if the DAPs close on schedule (September, 2006) is low, though they are likely to survive in a substantial minority. Sustainability is more likely in specific areas like income generating practices and less so for those like monitoring the growth of infants.

Measurement of sustainability. Enough former DAP communities and municipalities have been left to their own devices, as the CSs have adjusted their target areas, that sustainability of different aspects could be assessed in a series of case studies and related to possible causal factors. This would help design experienced-based

sustainability strategies, improved criteria for graduation, and programs of post-exit support and monitoring. It would respond to FFP's call for knowledge generation and ought to be included for funding in the MYAPs.

6.5 Impact of Hurricane Stan and Relief Efforts

Stan directly affected some target areas of CRS, SHARE, and CARE where homes, fields, and project-built infrastructure were destroyed. Indirectly, Stan affected all target areas in the altiplano through damage to roads and highways, loss of crops, and reduction of employment opportunities both near home and for seasonal migrants. The CSs were authorized by USAID to divert resources and staff to help with relief efforts not only in target municipalities, but also in other areas. This affected food distribution and diverted key technical personnel in the following months, but due to the rapid approval of OFDA funding, the Stan relief efforts did not affect DAP implementation as significantly as they might have. Impact varied among the CSs. CARE for instance proposed initially to re-direct \$1.2 million in monetization and Farmbill funding to the Stan relief effort; but with the arrival of funds and food aid for Stan relief from alternative sources, the diversion of DAP funding was much less than anticipated (on the order of 10% of the level proposed). In contrast SHARE withdrew from two non-affected municipalities and made significant budget changes for FY 2006 in order to shift resources to municipalities ravaged by Stan.

Hurricane Stan

In Monte Perla, an aldea of Tajumuco, San Marcos attended by the CRS DAP, people huddled in fear when the mountainsides began sliding down. Packed together in houses felt to be safe, they could not hear each other speak above the roar of the river tossing boulders about and ripping away fields and homes. But when it was over, they did not sit and wait for outside help to rebuild the extensive micro-irrigation system on which their livelihood depends. "We had to piece it back together as quickly as possible ourselves or we wouldn't be able to feed our children."

Recovery and adjustment is well under way; but Stan's impact on food security will be felt for several years, especially in the most isolated and worst-hit places. The evaluation team visited several of the severely affected municipalities in Sololá, San Marcos, and Huehuetenango. The manner in which communities are recovering is impressive, as is the government's effort to quickly mend major highways—though fewer than half of the damaged roads have been repaired.⁹ Nearly all electrical and many water systems have been repaired, but thousands still live in temporary shelters. Quick fixes made to homes, latrines, water systems and other assets damaged by Stan may break down in the coming rainy season. Many thousands of families lost their crops to Stan just before harvest and will have to wait for the 2006 season to begin to recuperate their household food security. There is a lack of funding for repair of micro-irrigation systems and other productive assets. The evaluation team saw examples of communities who were doing that on their own, but it is a need which should be prioritized to enable people to regain self-sufficiency as soon as possible.

Stan highlighted the need of the Title II program to create capacity for flexible response to emergencies and to emerging situations of food insecurity. It also provided an opportunity to showcase the ability, already possessed by the DAPs, to diagnose, react, and redeploy quickly and effectively. The lessons learned will be invaluable in designing and implementing the MYAPs.

⁹ Prensa Libre, 5 April 2006.

7 Recommendations

7.1 Crosscutting Recommendations

The DAPs and their successors, the MYAPs, should focus on the larger, crosscutting issues identified as obstacles to obtaining sustainable food security, as well as on improving each type of intervention.

- a) **Improve site selection and community motivation** by using the more detailed information now available on food insecurity, such as the Second National Stunting Census, and by developing competitive or similar processes that encourage communities to see food aid as something they have won through their willingness to work and learn, rather than as a gift or a right. These processes must be linked to two sometimes contradictory goals: that of working with the most food insecure populations and that of building sustainable food security in a cost effective manner through local capacity building and empowerment.
- b) Foster mechanisms that **build capacity and empowerment** in participating communities, avoiding those that replicate paternalism and reinforce dependency.
- c) **Promote integrated approaches** to lasting food security, not a narrow focus on temporary food aid and MCH/N activities that are dubiously sustainable in isolation (currently the approach at about 70% of DAP sites). Increase coverage and integration of interventions in agriculture, income, and democracy (participation, organization, empowerment) for greater impact and sustainability.
- d) **Create exit strategies and build sustainability** from day one. Encourage families, communities, and municipalities to organize, progress rapidly, and become self reliant—rather than leading them to expect indefinitely continued food aid.
- e) **End the need for annual migrations** of communities in arid places, forging alliances to improve water management, support irrigation systems, create employment opportunities, etc.
- f) **Mobilize more non-food resources**, in part through increasing monetization and in part through tapping in-country and outside sources, to support the greater integration of components and the reduction of annual migration. This implies improved coordination with other USAID programs.
- g) **Strengthen capacity, flexibility, and adaptability** at all levels—families, communities, local government, the Title II program, and beyond—to mitigate risks, address emergencies, and meet evolving needs.
- h) **Analyze and communicate results** better to show the impact of interventions, identify best practices, and attract more resources.
- i) **Study graduated communities** from past and current DAPs to determine how food security measures have fared and what kinds of post-project support systems best sustain key practices.

7.2 Maternal & Child Health and Nutrition: Recommendations

Recommendations for the remaining months of the projects

There is still time for the projects to improve impact on children's nutritional status before the end of the project. To do that, projects will have to orient MCH activities around improving breastfeeding and complementary feeding practices, promoting active and responsive feeding while increasing frequency of feeding and the quality and consistency of foods offered. This should include demonstrations of way to prepare nutrient dense complementary foods which are made entirely of locally available, affordable foods. The projects should continue to reinforce the recognition of danger signs of pneumonia and of dehydration due to diarrhea, but should invest little or no effort in further promoting hygiene, since that message seems to have been well internalized. It would be good to start targeting fathers and grandparents with the key messages to enable them to support mothers in making changes. To empower communities to create more effective, responsive relations with MSPAS health services, all projects can teach the "Health Rights and Responsibilities."

Projects can develop additional data and analyses to document results of their efforts. For example, compare coverage rates for immunizations or prenatal care between project and non-project communities, establish the difference in growth rates (if any) between households with different levels of adoption of hygiene and other recommended behaviors, and do similar comparisons to determine the impact of major activities (as per suggestions in Sections 4-6).

Recommendations for the MYAPs

Targeting

- **Choose compact, contiguous areas** or Departments where feasible, to avoid costs of transport and time.
- **Continue targeting the most food insecure communities**, rather than families within communities.
- **Focus health and nutrition education on first-time mothers**, including during pregnancy.
- **Engage men and grandmothers** in the educational activities.
- **Avoid allowing families to receive rations more than once.**
- **Structure selection and targeting to obtain commitments** to support the project and to continue participating in growth monitoring nor health education once the food incentive has been withdrawn.

Educational Component

- 1) **Prioritize nutrition behaviors.** In the MYAP document describe this, but do not expect to present a behavior change strategy. That can be developed in the first months of the new project.
 - a. Investigate the existing practices in each geographic or cultural area for breastfeeding and complementary feeding. Conduct the investigations in communities that have not been part of the project. Use the PAHO "Guiding Principles for Infant and Young Child Feeding" as a basis for investigating the behaviors plus looking at practices related to exclusive breastfeeding.
 - b. Analyze why the desired behaviors are practiced or not (doer/non-doer analysis).

- c. Re-focus the messages and counseling to address the problems behaviors identified, i.e., how to get sick children to eat, why giving liquids to newborns is dangerous, how to teach a child to eat, etc.
 - d. Provide community-level workers (and the technicians who support them) with more in-depth training on the desired behaviors and how they fit within the AINM-C modules.
 - e. Give pregnant and lactating women counseling on breastfeeding management – how to deal with problems, produce more milk, etc.
 - f. Budget for consultants to help build staff capacity as needed.
 - g. Get CSs working together to create the needed training curriculums, one for technical staff and another for community-level volunteers or staff.
- 2) **Cover additional topics on improving child nutrition** status in each one-year cycle. See the Technical Reference Materials at www.childsurvival.com for content accuracy.
- a. Danger signs in childhood illness – pneumonia, dehydration, severe diarrhea.
 - b. Prevention of diarrhea through hygiene, environmental hygiene, safe food handling.
 - c. Prevention of dehydration by administering any home-available fluid when diarrhea starts.
 - d. Maternal nutrition during pregnancy and lactation.
 - e. Danger signs during pregnancy, delivery, post-partum, and in the newborn.
 - f. Birth spacing or family planning.
 - g. Use of the donated foods.
 - h. Using money to buy healthy foods rather than junk food for children – comparative costs.
 - i. Rights and Responsibilities in Health
- 3) **Optimize educational methods**
- a. Begin by sensitizing the broader community and its leaders to the problems of health and poor nutrition. Help them understand that these are community issues, not just problems of individual families. Provide COCODES and the project committees with information on the health issues and assist them to analyze the problems and suggest solutions that they can implement themselves as a community.
 - b. Train individuals from within each community (volunteers or vigilantes) in the health and nutrition topics, in counseling and in adult learning principles, with the commitment to teach others too.
 - c. Utilize the vigilantes and midwives as much as possible. Have old promoters help with specific activities such as monitoring environmental hygiene.
 - d. Assure that educational activities are participatory, not passive. Use creative ways to get the messages to men, grandmothers, and other families who are not participating directly in the project.
 - e. Use counseling and home visits in preference to large group sessions.
 - f. Try Positive Deviance/Hearth in new communities which have >30% global malnutrition before starting food distribution or other educational activities. See the publication “Essential Elements of PD/Hearth” for assistance on site selection and quality implementation. Follow the steps completely and carefully to assure success. See www.coregroup.org/nutrition for Guide and Essential Elements.

- g. Encourage volunteers or health committee to follow-up on each case of “not growing well” and to analyze why the child is not growing and how to help the family. Assure that the mother isn’t just blamed for not caring properly for her child.
- h. For their own learning, CS staff should conduct rapid, qualitative studies of breastfeeding and complementary feeding practices, deepen the training of CHWs, and adopt a strategy that will lead to behavior changes in breastfeeding and complementary feeding practices. This should be based on WHO/PAHO’s *Guiding Principles for Complementary Feeding of the Breastfed Child*.
- i. *Calidad en Salud* should be approached to provide technical support for the CSs to develop IEC-CC strategies and support the strengthening of the AIEPI/AINMC application.

4) Integrate agricultural activities

- a. Promote activities that directly increase the families’ access to animal source foods – eggs, meat, milk. This will improve consumption of not only high-quality protein, but also B12, zinc, and iron. Such activities can include simply corralling and feeding chickens, or raising turkeys, goats, etc.
- b. Help families understand the relationship between animal foods and their child’s growth.
- c. Promote cultivation of high-nutrient vegetables such as broccoli, leafy greens and carrots. (These also have fewer pests.) Home gardens can be irrigated with wash water and other recycled water.

5) Revitalize monitoring and evaluation

- a. Involve the committees and volunteers in doing community-level monitoring, with analysis and follow-up. For example, they can track cases of diarrhea, take measures in response to rising prevalence, and figure out why certain children or families have more diarrhea and what can be done to improve the situation. Using giant growth charts, such as CARE has, the whole community can see the level of malnutrition and discuss how to assure that all children are growing well.
- b. Monitor behavior changes at least annually using either LQAS or sentinel sites. This can be done using a selection of the same questions from the KPC 2000+ which are used for the baseline and final surveys. Readjust behavior change strategy based on the results of this monitoring.
- c. Adopt check lists (CRS has the AINM-C ones adapted) for monitoring staff and volunteer performance.
- d. Continue regular (quarterly) monitoring weight for age, not just “growing well.”
- e. Choose 5-8 indicators to track change in the breastfeeding, complementary feeding, and health behaviors discussed above.
- f. Use MSPAS data to document results, for example, fewer diarrhea cases in a community where latrines were installed, or to compare project and non-project communities for rates of illness, coverage, etc.

6) Strengthen the capacity of the MSPAS and SIAS contractors

- a. Offer training and supportive technical supervision. Assist them to replicate the training and carry out related activities.
- b. Model for them and train them to use supervision check lists to improve performance.
- c. Promote self-supervision using check lists to improve patient relations.

- d. Deepen the knowledge of physicians, nurses, and others in breastfeeding, lactation management, and complementary feeding based on the Guiding Principle for Complementary Feeding of the Breastfed Child.
- e. Participate in *Salas Situacionales* and planning meetings at the district level, using the opportunity to help them get to the root of problems and devise action plans to address root causes.
- f. Strengthen the links between the COCODES (and COMUDE), volunteers or vigilantes, the project committees, and the health facilities.
- g. Train MSPAS and SIAS staff and volunteers in adult learning principles.
- h. Have the vigilantes weigh participating children along with the rest in the community. Project committees or volunteers may assist them.
- i. Budget for consultants or trainers as needed.
- j. All CSs could work together to develop training plans and materials.

7) Empower communities

- a. Start with PRA/PLA or WARMI to enable the community to identify and take ownership of the health, nutrition, and food security problems.
- b. When forming new committees, give them the expectation that they will be able to do much more for their community than distribute food or make emergency transport plans. Encourage creativity and initiative.
- c. Help them, but do not do for them. Assist them to make plans for addressing the needs and problems they identified in the participatory analysis (PRA/PLA or WARMI). Start with actions they can take with out having outside resources – garbage clean-up, spreading health information, draining stagnant water, etc. Involve them with the teachers in the Healthy Schools initiative.
- d. Give them the skills needed to seek outside assistance – managing funds, performing audits, preparing budgets, writing simple proposals, finding potential donors or technical assistance.
- e. Use existing resource materials. Save the Children has a guide book on mobilizing communities. CARE has a training plan for training all levels of staff in how to foment community empowerment. Both Save and CARE have experience with WARMI in Bolivia. CRS has a complete manual for PRA/PLA. SHARE began using PRA with community development committees during its first DAP from 1995-2001 and has adopted similarly empowering methods since, well documented in a series of manuals.

7.3 Income Generation and Agriculture: Recommendations

7.3.1 Recommendations to improve agricultural sustainability

Opportunities to improve sustainable agriculture and natural resource management and increase household food security?

Groups vs. individuals. All the CSs use groups to some extent. Groups are easier for the extensionist to train, and in some cases they allow investments that all the members can use (like a seedling greenhouse—see Boxes J.28 and J.23, also J.7). In many cases, the actual production is more efficiently done at the household level. Most of the programs already work this way. Training at group level, with most production by individual households should continue. Some topics require group training, such as protection of the water source for an irrigation system, as the entire group is responsible for this, not just upstream users.

Groups and promoters. Continue using groups and promoters as the basic extension method. It is working well. The promoter's farm becomes a kind of 'demonstration plot'.

Constraints. The three greatest ones are lack of land, capital, and technology

Promote integrated farming. The solution to these constraints is integrated farming. A small farm in Guatemala needs to have a balance of food both for the family and to sell, of grains, vegetables, and animals. Having several species of crops and animals allows for more complete recycling (saving production costs), e.g. vegetable waste can be fed to animals, and their manure can be applied back onto the gardens. Growing enough to eat saves on transaction and transportation costs, and ensures fresh, high-quality food. Extra resources can be dedicated to a few cash crops.

1. Families in project areas have just a few hundred square meters of land. They need to obtain more, and the project has some experience helping communities do so using legal, non-violent means (see Box J.12 coffee dryers, and Box J.8 land of their own).
2. Meet demand for maize and beans for the household to eat (including soil conservation, soil fertility, irrigation, crop varieties, storage).
3. Meet demand for other household foods: gardening, livestock
4. Forestry for firewood and construction, and for protecting watersheds.
5. Cash (depending on the area) from: vegetables, cut flowers, ornamentals, coffee, cardamom, Jamaica flower, livestock, forestry, even maize and beans in some areas.

The DAPs should stop demonizing chemical fertilizer. Small doses, properly applied, combined where appropriate with organic fertilizers, may help smallholders increase yields. Fertilizer use should be an empirical question, not an ideological one. Continue to make good compost and continue with live barriers.

7.3.2 Recommendations to increase farm yields and product sales

What are the greatest opportunities/potentials for the Title II program to improve the quantity and quality of farm production, increasing the volume and value of product sales, and improving the environment for micro/small/medium enterprises?

Some of the more promising cases are chickens, home gardens especially with drip irrigation. Goats may be a good option, but they need more analysis.

Vaccinating poultry, goats, pigs, and other farm animals will help to keep them healthy, and can be a sustainable income source.

Every household should have a grain bin or a corn crib, to make stored maize and beans last longer, and to keep out rats, mice and weevils.

Sometimes the project uses unproven methods to avoid regulation 216 compliance issues. The standard recommendation for killing weevils in grain bins is a single dose of phostoxin. The DAPs recommend, instead, using a candle to burn out the oxygen, or stuffing eucalyptus leaves down the mouth of the bin. These methods need to be tested to see if they really work. Similarly, the project needs to monitor the effectiveness of sulfocalcio and botanical sprays to control insect pests. A comprehensive monitoring and compliance plan for each project will allow for these lessons to be learned, and shared among all PVOs.

The best way to reduce the use of insecticides in vegetable gardens is not to spray homebrews, but to plant species with few insect pests. The agricultural programs should recommend vegetables that are both nutritious and have few pest problems (for example, broccoli has fewer pests than cabbage, and is at least as nutritious). Carrots have far fewer pests than tomatoes. Native vegetables are also good, with the added advantage that the seeds are produced locally, for free.

Other promising options, not generally tried yet in the project, include turkeys, broad beans (*habas*), and cut flowers for local markets.

Base all activities on feasibility of supply and existence of demand.

7.3.2 Recommendations for non-farm activities

How could non-farm activities play a greater role in follow-on programs?

Crafts. weaving (training and marketing). Group looms have not worked as well as hoped. Women like to have their own loom at home. Try ceramics, wooden spoons, metalworking, or other crafts.

Main conclusion based on successful project activities:

Make a modest investment, and teach some new technology. But build on a product that local people know, and which has a local demand.

Successful project technologies

Home gardens	Chicken coops	Pigs
Drip irrigation	Coffee dryers	Vaccinations for animals
Black beans, bush varieties	Coffee nurseries	Foxtail grass live barriers
Grain bins	Jamaica flower	Tree nurseries (fruit & forest)
Corn cribs	Goats	Compost (make it in the office)
Maize dryers		Honey

In the future, also try

(More) flowers (cut flowers for local markets as a cash crop)
Broad beans (*habas*)
Turkeys (for eggs and meat, to eat and to sell)
Plant fruit trees near old latrines, to make use of the organic matter in the old pits

7.4 Democracy/governance: Recommendations

Increase coverage. Incorporate specific activities to build democratic processes in communities and municipalities, to support integrated development, and to increase sustainability at all sites.

Enable communities become protagonists. Involve communities from the first in diagnosis and activity design, then in implementation and management, including monitoring, evaluation, and making adjustments. Build their capacity to raise themselves up by their bootstraps to achieve food security and related goals. Use past successes as learning places, and experienced peers as guides.

Develop skills in all for participation, organization, and empowerment, from personal expression skills to social auditing.

Leadership. The DAPs need to improve the quality of local organization and leadership, transcending fiefdoms and uni-personal styles.

Build self-sufficiency, not dependence. Opportunities to build independence are many. One is treating communities as partners rather than as recipients (consultation, mutual agreement on intervention design, community monitoring of results, etc.). Another is when technical staff induce participants to develop their own solutions rather than providing them (e.g., staffers resolving a conflict, locating and purchasing agricultural inputs, having farmers wait until somebody else does their marketing plan, etc.). In future Title II interventions, the PVOs need to help staff become enablers, facilitators, rather than direct-action protagonists.

Exit strategies. Operative strategies to graduate communities and move resources on to other, more food-insecure places, monitor post-graduation progress, and report results.

Closely woven support networks. Establishment of participatory local development processes, civil society and private sector networks, strong local partners, and access to credit and technical support.

Appropriate indicators. Develop a set of indicators that assess progress toward these goals.

7.5 Infrastructure / FFW: Recommendations

Assure appropriate use of FFW and the improvements it supports: best when community oriented, with long term impact on food security, avoiding appearance of benefit to individual households and farms.

Adopt uniform criteria on when and how to use FFW, so as not to have some communities getting incentives for tasks that other communities (working with another CS) accomplish unrewarded.

Use FFW and infrastructure interventions as catalysts to strengthen community cohesion, participation, organization, and project development/management skills, rather than deepening tendencies to dependency and patronage. FFW rations are also a potentially valuable, flexible resource for emergency response situations (as shown by the post-Stan experience). Avoid “make work for food” in order to meet food distribution goals.

Make adequate provisions for sustainability of all infrastructure projects: commitments by communities, operation and maintenance agreements, collection of user fees, involvement of municipalities—whatever works. Infrastructure without workable sustainability provisions is little more than patronage.

Use “**competitive**” **selection processes** for FFW projects, so that communities see themselves as obtaining limited resources on merit rather than as a gift. Choose those projects that show strong community support in the form of participatory priority setting, counterpart inputs (from the community, the municipality, other sources), and real commitment to maintenance and mitigation measures.

Strengthen COCODES and COMUDE by using them as the forums where options and priorities for FFW and other projects are discussed and decisions are taken. Too often their role has been reduced to rubber stamping projects that have been promoted by technical staff and that have only lukewarm support from the populace.

7.6 Environmental / Regulation 216: Recommendations

- **Address FFW projects (infrastructure, aquaculture/agriculture) with IEEs**, implement LAC guidelines for environmental compliance, and include funding for ensuring this compliance.
- **Improve compliance** with IEE mitigation requirements, where needed, and assure proper buy-in by participants to mitigation commitments in future projects. This buy-in could take the form of implementation agreements, cost sharing mechanisms, development of locally oriented guidelines and IPM agricultural products, and/or involving beneficiaries in the monitoring and reporting of mitigation measures.
- **Encourage proactive approaches** by each community to management and protection of its environment, as opposed to simply going through the motions of compliance with Regulation 216.
- **Develop awareness** of and solutions for more sophisticated environmental concerns, like the potential effects of introducing invasive species, disturbing archeological deposits, or reducing stream flow. Access the experience of other USAID projects in such areas.
- **Create a framework for regular sharing** among the DAP staffs issues, lessons, and best practices in regard to with Reg. 216, including the mechanisms and materials developed for monitoring and mitigation.
- **Include protection of water sources** in all irrigation infrastructure. This may include reforestation, fencing, exclusion of livestock, solid waste mgmt., etc. Developing community water councils will broaden user participation in water conservation.
- **Hold health committees responsible** for appropriate medical and other waste management. This should include an implementation agreement which makes benefits contingent upon compliance.
- **Designate one staff member from each CS** on award of MYAPs to complete Reg. 216 documentation, implement mitigation measures, and report on compliance and effectiveness of these measures.
- **Include adequate funding for environmental compliance** in MYAP budgets.
- **Consult USAID’s Environment Office** in all phases of project development.

7.7 Monetization and Complementary Resource Mobilization

7.7.1 Recommendations: Monetization

- Further exploration of new products for monetization, even if for smaller volumes, and adoption of a market basket approach that includes a combination of commodities (McIntyre 2005).
- With the withdrawal of Title II programs from the rest of Central America, it may be possible to explore third country monetization.
- Development of the capacity of small and mid-sized buyers, including training in the procedures needed to bid and fostering easier access to letters of credit. This may not be feasible with some commodities, but may be with others. Higher operational costs may be offset by lower levels of overall risk to the consortium.
- Given that large international grain companies like Cargill and ADM are active in Guatemala, it may be feasible to engage one as the agent for monetization sales. They could also handle third country sales (McIntyre 2005).
- In-depth review of the current monetization programs and potential alternatives by experienced traders and monetization experts (from the home and field offices of the international PVOs or consultants) to develop a plan of action.

7.7.2 Recommendation: Explore acquisition of ITSH funds.

7.7.3 Recommendations: Counterpart Contributions/Complementary Funding.

- Leverage larger commitments from communities, municipalities, and project groups through competitive processes to access MYAP resources.
- Put together public-private sector partnerships, both large and small (e.g., cooperative agreements with local health service providers).
- Locate complementary projects in areas that support food security in MYAP communities and municipalities.
- Mobilize public sector resources through alliances: health ministry and/or service providers, MAGA, municipalities, FIS, FUNDEPAZ, local, national, and international NGOS, UNDP, WFP, etc.
- Monitor and communicate success in strengthening food security efforts by bringing to bear these additional resources.

Annex A: Individual Report, CARE

Maternal Child Health and Nutrition

CARE is to be commended for their strategy of partnering directly with the MSPAS and Extension of Coverage (SIAS) contractors. CARE has funded training, assisted with training facilitation, strengthened planning and evaluation processes, fomented community outreach, and provided on-the-ground accompaniment to assure quality implementation of service delivery, community mobilization and education, and maternal and child health initiatives such as IMCI, AIEPI/AINM-C, and CAIMI. In Alta Verapaz, CARE spearheaded a coalition of INGOs in introducing AIEPI/AINM-C to MSPAS and SIAS contractor personnel as early as 2002. Another outstanding example the fruit of CARE's partnership with the MSPAS and collaboration with the *Calidad* project is the establishment of the Center for Integrated Maternal and Child Attention with its network of community health committees which have emergency transport plans. (See box on page 25.)

Where CARE is working, in all but one of the districts visited, the evaluation team found that district health personnel had been motivated by the support and collaboration, were proactive in efforts to reduce MCH morbidity and mortality, and had vision beyond simply accomplishing their service delivery functions. CARE should continue to focus on the very positive outcomes of their work with MSPAS at the district level and not be discouraged by lack of interest in collaboration shown at the Area and national levels. CARE can use the remaining months of the current project to strengthen the technical knowledge and capacity of the new SIAS contractors within the target areas.

To strengthen AINM-C counseling, CARE may want to learn from SHARE how to implement the scheduled sessions (*horario escalonado*) for growth monitoring to allow adequate time and quiet space for counseling each mother. Motivating mothers to want to weigh children and attend educational sessions for the sake of learning rather than just for fulfilling the requisite to obtain the ration is a challenge to be overcome.

The EDUSANs are, for the most part, well trained and competent. Developing a standardized system for training replacements is important to assure continued quality of work. This would be complemented by also training community-level volunteers, even in areas where there is no Extension of Coverage. Every effort should be made to hire EDUSANs who speak the language. It may not be necessary to hire auxiliary nurses; rather teachers might suffice since the work is mostly education. Uniform use of supervision check lists by the technical advisors and development facilitators would enhance supportive supervision.

A few CARE staff have had previous training in community empowerment. While the health committees and others in CARE sites are already somewhat more empowered than those of other CSs, it would be good to replicate the empowerment training for all field staff working in the program. The "ladder of empowerment" can serve as a basis for evaluating the level of empowerment achieved in each community. In addition, CARE may want to contact CARE Bolivia for support in learning the WARMI methodology which was used very successfully there in a CARE MCH program. WARMI would serve as the community diagnosis within the empowerment approach.

In this DAP, CARE took the responsibility of food distribution from the MSPAS health facilities and shifted it to community committees. The committees take their responsibilities very seriously, maintaining scrupulous records and devoting many volunteer hours to the transport and distribution while maintaining very clean local storage facilities, with almost zero wastage. This appears to have been a very positive improvement in food handling as well as giving the communities administration experience.

Agriculture and income generation

CARE has a large, innovative supply of technology, e.g. coffee dryers, native and European honey bees, Jamaica flowers, using coffee pulp for fertilizer, pulping coffee with low volumes of water, peanuts, soil conservation, livestock pens (*apriscos*), chicken coops, pigpens, grain silos, and innovative marketing strategies, e.g. working through Forestrade. CARE helped the people of Los Pinos get land of their own, for which the community is grateful.

In Carchá, Alta Verapaz, CARE made an ingenious effort to find a market for roasted coffee. They need to think why they could not sell all the coffee. CARE did an excellent job teaching the coffee coop to use the processing plant (*beneficio*), which they had built previously but had not been able to use.

CARE has little grain bins for maize seed, which seems like a good idea, and perhaps should be made known to more CSs.

The home gardens, tomatoes, drip irrigation for vegetables, chickens, and honey seem like especially good options, which can be confirmed with some simple analysis with the people.

CARE's rotating funds work well, but we need to ask a) could more families be reached? And b) how sustainable will it be after the project ends?

Other Areas.

CARE's FORTALEZA project is a good model to start from in the democracy/governance area. It has been generally successful in improving participation, organization and empowerment at both the community and municipal levels, as noted in the text. However its goals and indicators are not clearly thought out. They do not reflect the full range of action of the project nor the potential that activities in these areas have to increase impact on and sustainability of food security.

CARE also showed a competent M&E operation with strong analytical ability. However, it disappointed the evaluation team by first agreeing to provide analyses of existing M&E data to show the differences (if any) in infant growth rates and other indicators between sites with and without agriculture/income interventions, with different degrees of democracy/governance interventions, and between families that showed differing degrees of adoption of hygiene behaviors, among others—and then never presenting these analyses. It should do them for its own interest, for reasons made clear in the text.

As is evident in the IPTT table below, CARE appears not to be tracking its main indicators closely enough to be of use in year-to-year project management, but rather waiting for survey data at mid-term (though not shown) and project end. Nor does it have other indicators that provide useful proxies (e.g., they might be waiting for HAZ, but be following WAZ as a proxy—but though they weigh the children every month, they are not reporting that data). This is an example of several points made in Section 5. However, the head of M&E told the team that the weight data was available on the computer for analysis, so in theory it is accessible to management.

CARE – 2005 Indicator Performance Tracking Table

Indicator	Base-line	FY 01 Target	FY 01 Achieved	FY 01 % Achieved vs. Target	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs. Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs. Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs. Target	FY 05 Target*	FY 05 Achieved	FY 05 % Achieved vs. Target	FY 06 / LOA Target
% of malnourished children (ht/age) <60 months of age in selected target areas	70%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5%
% increase in average per capita income in selected target areas	Q666.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5%
% of children <36 months with diarrheal episodes during the last two weeks (disaggregated by gender)	44%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17%
EDUCASA Strategic Objective #1																	
% of underweight children (wt/age) <36 months of age (disaggregated by gender)	39%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10%
% of target population with access to potable water	49	16 (8%)	16 (8%)	100%	59 (31%)	28 (14.5%)	47%	114 (59%)	82 (42%)	71%	146 (50%)	116 (40%)	79%	174 (60%)	169 (58%)	30%	232 (80%)
% of children <36 months whose growth is monitored according to MOH norms	0	(6888) 25%	(6888) 25%	100%	(11020) 40%	(17907) 64%	162	(19285) 70%	20734 75%	107.50 %	(22040) 80%	21630 (78%)	98%	(23300) 85%	22425 (81%)	96%	(24795) 90%
% of children taken for treatment when mothers identify 2 or more signs of pneumonia	31%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	05% (from 31 to 36%)
% of children taken for treatment when mothers identify 2 or more signs of dehydration	72%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	05% (From 72 to 77%)
% of population with proper hygiene behavior	29%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15% (From 29 to 44%)
% of community organizations involved in activities to improve their health and nutrition status.	169% (18%)	50 (33%)	132 (88%)	260%	150 (100%)	152 (101%)	100%	150 (100%)	150 100%	100%	150 100%	170 (113%)	113%	200 100%	189 (94%)	94%	200 100%

CARE – 2005 Indicator Performance Tracking Table

Indicator	Base-line	FY 01 Target	FY 01 Achieved	FY 01 % Achieved vs. Target	FY 02 Target	FY 02 Achieved	FY 02 % Achieved vs. Target	FY 03 Target	FY 03 Achieved	FY 03 % Achieved vs. Target	FY 04 Target	FY 04 Achieved	FY 04 % Achieved vs. Target	FY 05 Target*	FY 05 Achieved	FY 05 % Achieved vs. Target	FY 06 / LOA Target
# of municipalities including health and nutrition activities in their annual plans	0	2 (14%)	4 (14%)	200%	4 (28.6%)	4 (28.6%)	100%	8 (57.1%)	12 (85.7%)	(150%)	14	14 (100%)	100%	14	14 (100%)	100%	14 (100%)
PROAGI-Strategic Objective #2																	
% families with an increase in income from agricultural production	46.60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10%
Volume of agricultural and animal husbandry produce	Com 602999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20%
% of families using 3 or more sustainable agricultural practices	49.40%	742 (5%)	742 (5%)	100%	2226 (15%)	1843 (12.4%)	83%	5936 (40%)	4537 (31%)	77%	9646 (66%)	7217 (49%)	75%	10388 (70%)	10317 (69%)	99%	11130 (75%)
% families producing cash crops	39.8	445 (3%)	445 (3%)	100%	742 (5%)	597 (4%)	80%	1484 (10%)	1538 (10.4%)	103%	2260 (15%)	2376 (16%)	105%	2614 (18%)	2566 (17%)	98%	2968 (20%)
% of families receiving credit		445 (3%)	446 (3%)	100%	890 (6%)	749 (5%)	84%	1039 (7%)	2839 (19.1%)	191%	3,719	3011 (20%)	81%	4519 (30%)	4513 (30%)	100%	5319 (36%)
% of families marketing their on-farm production surpluses.	2.8	---	---	---	445 (3%)	510 (3.4%)	115%	890 (6%)	448 (3.0%)	50.30%	1187 (8%)	1046 (7%)	88%	1337 (9%)	1061 (7%)	79%	1484 (10%)
% of community organizations implementing food security activities.	93 (10%)	15 (10%)	15 (10%)	100%	38 (25%)	39 (26%)	103%	90 (60%)	102 (68%)	113%	120 (80%)	119 (100%)	100%	150 (100%)	157 (104%)	104%	150 (100%)
% of municipalities that incorporate food security needs into government decisions in local plans.	0%	2 (14%)	2 (14%)	100%	4 (29%)	4 (29%)	100%	8 (57%)	12 (85.7%)	150%	14 (100%)	14 (100%)	100%	14 (100%)	14 (100%)	100%	14 (100%)

*** NOTE:**

The indicators included in this table that are lacking information are those that are not reported through the monitoring system due to the fact that they are indicators for which information is obtained solely through evaluation activities (baseline and final surveys).

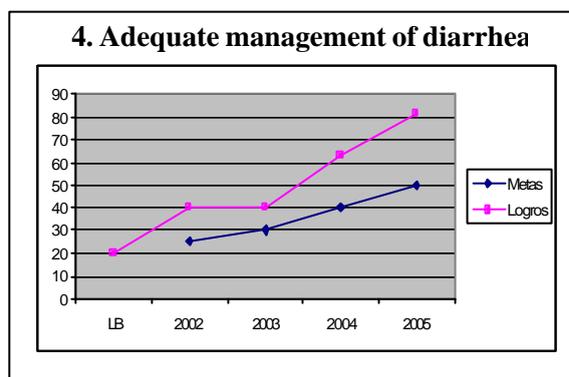
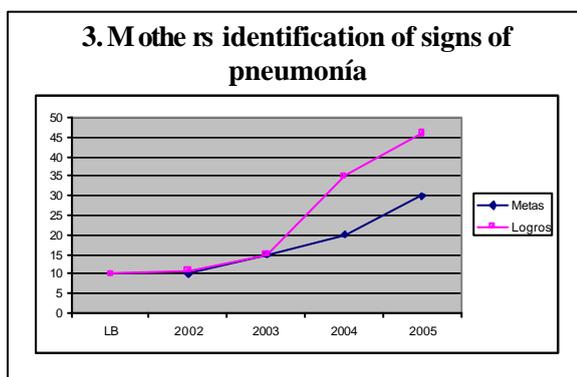
Annex B: Individual Report, SHARE

Maternal Child Health and Nutrition

SHARE has been the most rigorous in applying the AIEPI/AINM-C methodology as recommended. They are the only CS that persisted until communities accepted the scheduled hours for growth monitoring. Both volunteers and participants say that after the first 3-4 months of adjustment, they have begun to appreciate the time saved and the reduction in the stress of dealing with large and noisy groups. The level of knowledge and record-keeping of SHARE community workers was uniformly good, but there were differences in the quality of counseling. This was associated with differences in style of supervision within the same municipality. SHARE's implementing partners do not seem to be using any standardized form of supervision.

SHARE is monitoring impact data on an annual basis by conducting surveys of both height and weight of stratified samples of participants in each geographic area. (See Section 4.2 or Annex K.) SHARE attributes the increases in malnutrition rates in 2003 to the addition of Comitancillo, San Marcos to the program with its very high rates of malnutrition, to withdraw from Carcha, Alta Verapaz (which had low levels of global malnutrition, at 11%), and to the impact of the coffee crisis and droughts in other areas of the program.

SHARE also monitors changes in knowledge of pneumonia symptoms, appropriate diarrhea treatment, and immunization coverage, which has reached at least 90% in all areas. All of their monitoring data reports to significant improvements.



Overall, SHARE's maternal child health and nutrition interventions are quite good and seem to be having an impact. It would be very beneficial if they could apply their expertise and experience to build the capacity of local MSPAS staff, SIAS contractors, and *vigilantes*.

MALNUTRITION PROGRAM RESULTS				
(WEIGHT FOR AGE)				
SHARE GUATEMALA				
No.	DEPARTAMENTOS AND MUNICIPALITIES	2001 *	2005 **	% Change
HUEHUETENANGO				
1	Chiantla	35.0	34.4	1.7%
2	Nentón	43.5	30.6	29.6%
3	San Pedro Necta	30.2	27.4	9.2%
4	Jacaltenango	29.6	21.6	27.1%
5	Soloma	29.8	23.8	20.1%
6	Todos Santos Cuchumatán	35.5	30.3	14.6%
7	San Mateo Ixtatán	60.3	41.7	30.8%
8	San Juan Ixcay	39.2	27.2	30.6%
9	San Antonio Huista	21.7	23.1	-6.5%
BAJA VERAPAZ				
10	Rabinal	31.0	23.1	25.4%
11	Cubulco	41.1	27.4	33.4%
ALTA VERAPAZ				
12	Fray Bartolomé De Las Casas	20.0	18.7	6.2%
CHIMALTENANGO				
13	San José Poaquil	28.9	24.0	16.8%
14	San Martín Jilotepeque	26.6	20.6	22.6%
15	Comalapa	23.5	28.2	-20.4%
16	Santa Apolonia	22.6	24.6	-8.9%
17	Tecpán Guatemala	35.3	28.6	18.9%
SAN MARCOS				
18	Comitancillo	43.2	37.1	14.3%
Annual Averages		33.1	27.4	17.2%

* Data from 2001 comes from monthly growth monitoring in August and is different from the random sample of all program areas used for the program baseline, also conducted in 2001.

** Data from 2005 is also taken from monthly growth monitoring in August

Agriculture and income generation

The interest groups that work with Share pay back 25% of their loans, and keep the rest as investment capital. This is a good idea. SHARE understands that if people get something for nothing, they do not value it.

SHARE adopts or inherits some older groups (perhaps 20% of all their groups), which existed before the project, like the egg producers in Chimaltenango. This may be a sustainable approach; if a interest group has already survived for several years, they may be more solid, and they may serve as good examples for other groups to learn from. It might be better to spread the help around, to help new groups get started, something that SHARE does in 80% of the cases.

The loroco project in Rabinal is an excellent example of a local product with local demand, which was made more profitable with a little capital and technology. The chickens in Chicoy, Todos Santos, seem like a solid activity.

Selling native chicks in Rabinal earns a modest income, but perhaps their biggest advantage is that they help women, including several widows, to organize for mutual support.

There are some problems with paternalism, noted particularly with ADIPO. One group had taken the doors off their greenhouse, which defeats much of the purpose of having a screened house, yet they asked the evaluation team for a greenhouse for each member. They had little idea of what a greenhouse cost (i.e. they were not looking at their work as a business). The problem with the mushrooms is mentioned below in Box J.33. However, problems of the sort cited were not observed in other places. In regard to paternalism it should be noted that in contrast, SHARE works with formal micro credit loans to many ADIPO groups that must repay the principal plus 16% annual interest.

Two of the groups of weavers seem quite solid, but each is based on one strong personality (a local woman, in each case). Women appreciate weaving more when the loom is in their home (e.g. Flor de Algodón) and find it difficult to come to a central place to weave on a loom (as in the other cases). The attraction of weaving is that a woman can do it at home, where she can keep an eye on her other responsibilities.

There are many other craft items that could be made, for sale locally (oil lamps, buckets and pails, *comales*, flower pots, tables and chairs, etc.) all of which would probably be easier to sell than export items.

Other Areas

SHARE is to be commended for its good management information inputs, regular monitoring of its main indicators, and healthy development and use of regular, structured evaluations of staff, partners, and key participants. Its documentation of all processes involved in project operations and its thorough, self-critical annual in-house reports were exemplary.

SHARE Guatemala Indicator Tracking Table, FY2001-06 DAP- Updated November, 2005

Indicator	Baseline	FY2001			FY2002			FY2003			FY2004			FY2005			FY2006
		Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	Goal
Increased Family Incomes																	
1.1.1. Families participating in production related interest groups (IG) affiliated with the DAP increase average per capita income by X% over the baseline.**	Q806 (\$105)	N/A	N/M	N/A	2%	5%	250%	5%	21%	420%	8%	28%	350%	20%*	66%	330%	25%
2. X% of families who participate in IG with production related goals report per capita income increased over past year	N/M	N/A	N/M	N/A	20%	71%	355%	30%	72%	240%	40%	67%	168%	75%*	73%	97%	80%
3. X% of farmers who participate in the program apply at least 2 soil conservation techniques	15%	N/A	N/M	N/A	20%	38%	190%	25%	58%	232%	30%	61%	203%	65%*	74%	114%	70%
4. Provide X (up to 8,100) productive credits to participating families	N/A	2,000	230	12%	1,500	540	36%	1,500	312	21%	2,000	454	23%	500*	134	27%	600
Improved Family Health and Nutrition																	
2.1.1. Reduce to X% chronic malnutrition in children 0-36 months who participate in the program	56%	N/A	N/M	N/A	55%	58%	4% Rel. Increase	54%	58%	7% Rel. Increase	52%	56%	N/A	50%	53%	50%	50%
2.1.2. Reduce to X% global malnutrition in children 0-36 months who participate in the program	34%	N/A	N/M	N/A	33%	31%	10% Rel. Reduction	31%	33%	6% Rel. Increase	28%	30%	67% Rel. Achievement	25%	27%	78%	25%
2.2.1. X% of families participating in the program undertake 4 appropriate practices in treating Acute Respiratory Infections (ARI)	N/A	N/A	2%	N/A	2%	2%	100%	5%	13%	260%	10%	17%	170%	15%	25%	167%	23%

SHARE Guatemala Indicator Tracking Table, FY2001-06 DAP- Updated November, 2005

Indicator	Baseline	FY2001			FY2002			FY2003			FY2004			FY2005		FY2006	
		Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	Goal	Achieved	%	
2.2.2. X% of families participating in the DAP recognize two signs of danger with a complicated ARI or case of pneumonia	N/A	N/A	N/M	N/A	10%	11%	N/A	15%	15%	100%	20%	35%	175%	30%	46%	153%	35%
2.2.3. X% of families participating in the program appropriately treat cases of diarrhea	20%	N/A	N/M	N/A	25%	40%	400%	30%	40%	133%	40%	63%	158%	50%	81%	162%	55%
2.2.4. Increase by X% the number of children 12-23 months with complete vaccination schemes	54%	N/A	N/M	N/A	55%	66%	1100%	56%	74%	132%	58%	88%	152%	60%	89%	148%	80%
2.3.1. X% of adults between 15 & 45 years old who participate in the DAP are capable of adequately identifying obstetric and new-born emergencies	14%	N/A	N/M	N/A	20%	22%	133%	25%	46%	184%	30%	68%	227%	40%	83%	208%	60%
	14%				20%	22%	133%	25%	48%	192%	30%	68%	227%	40%	86%	215%	60%
2.3.2. X% of adults between 15 & 45 years old who participate in the DAP recognize the importance of: 1. Spacing births, and 2. Reducing the number of births per woman	16%	N/A	N/M	N/A	20%	21%	125%	25%	44%	176%	30%	63%	210%	40%	76%	190%	55%
	13%				20%	20%	100%	25%	26%	104%	30%	32%	107%	40%	67%	168%	40%
2.4 X number of children 0-36 months old in nutritional recuperation activities per year recover from <-2 deviations standard acute malnutrition	N/M	N/A	N/M	N/A	N/A	N/M	N/A	N/A	N/M	N/A	2,000	198	10%	2,200	228	10%	800

* The asterisk denotes that SHARE has made adjustments in these indicators during FY2004 and they have been approved by USAID/Guatemala.

**For indicator 1.1.1 SHARE adjusts for inflation and removes family remittances to calculate the annual incomes.

**LOCAL CAPACITY AND ORGANIZATIONAL STRENGTHENING COMPONENT
INDICATOR TRACKING TABLE**

INDICATORS	BASE-LINE	2002 TARGET	2002 ACHIEVED	2003 TARGET	2003 ACHIEVED	2004 TARGET	2004 ACHIEVED	2005 TARGET	2005 ACHIEVED
1. By year's end, X% of interest groups have achieved 60% of the goals set in their work plans.	n/m	50%	n/m	60%	41%	70%	67%	70%	81%
2. 100% of DAP local partners with satisfactory score (80% of points or more) in annual performance evaluations.	n/m	60%	75%	70%	75%	85%	94%	90%	100%
3. X% of interest group leaders with a satisfactory score in annual progress evaluations.	n/m	50%	n/m	60%	41%	65%	76%	75%	91%
4. Raise by X% the participation of women and youth in interest group leadership roles (Boards of Directors).									
Leadership by women: % on BODs	n/m	4%	13%	4%	11%	12%	26%	15%	63%
Leadership by youth: % on BODs	n/m	4%	20%	4%	61%	12%	86%	15%	17%

Annex C: Individual Report, CRS

Maternal Child Health and Nutrition

Overall, the CRS health and nutrition component is relatively good. The CRS/Caritas interventions in MCH were stronger in Baja Verapaz than San Marcos, and stronger there than in Chiquimula-Zacapa. The more significant improvements in nutritional status in Chiquimula may be due to the food supplements and improving economic conditions rather than to behavior changes. In fact, while there were some observable improvements in hygiene and good adoption of SODIS and other wat/san improvements, the poor breastfeeding and complementary feeding practices in that area are of serious concern. There is almost no exclusive breastfeeding after the first month of life, and even the community health workers don't believe in exclusive breastfeeding. It would be worthwhile for CRS to continue working on these practices in the same target area, after first significantly strengthening the skills and knowledge of Caritas regional and local staff as well as that of staff of all local health facilities. In Chiquimula, Caritas is utilizing the *vigilantes* or government CHWs, which does create a link with the MSPAS health facilities or SIAS contractors. The use of participatory community analysis with health committees is commendable.

In Baja Verapaz, there was evidence that key messages are being disseminated informally to others in the community including leaders and families not participating directly in the project. The regional staff have made efforts to try new innovations and to document their results. They are using a modified version of the supervision check lists developed by *Calidad*, a definite strength for enhancing staff and volunteer performance. While personal and environmental hygiene in the communities was far better than normal for such rural areas, retention and comprehension of other health messages was not as high as could be expected.

The limited capabilities of Caritas San Marcos staff, and the inability to speak Mam of some who train community health workers, is affecting the quality of community work. While CRS has no direct say about who is hired for the program, they may want to add further qualifications to job descriptions, which should be jointly developed. It would be advisable to do training needs assessments of all levels of Caritas San Marcos staff and use the results to plan formal and informal training to up-grade their skills.

It was unfortunate that the team was unable to travel to Chisec, A.V., where Caritas is implementing the project concurrently with a SIAS contract for Extension of Coverage. As there seems to be great vision for this overlap, it will be interesting for CRS to document the results. It may provide a good pilot for Caritas with an end to greatly expanding their direct involvement in the health sector in other Areas.

It appeared that the volunteers and community-level staff are doing little counseling as they prefer to do large group sessions, even without audio-visual materials. While there are benefits of peer-to-peer exchange and support in well-facilitated group sessions, the one-on-one counseling has been found to be more efficacious in changing behaviors. To strengthen AINM-C counseling, CRS may want to learn from SHARE how to implement the scheduled sessions (*horario escalonado*) for growth monitoring to allow adequate time and quiet space for counseling each mother. Motivating mothers to want to weigh children and attend educational sessions for the sake of learning rather than just for fulfilling the requisite to obtain the ration is a challenge to be overcome.

CRS has developed a comprehensive set of eight modules covering all aspects of the program. Preparation of an additional one focusing on nutrition is underway. CRS may want to consider creating training plans for each of these modules for two levels – for technical staff and for community health workers/volunteers.

Agriculture and income generation

Merely applying labor, with no new investment, does not help people to produce much more, especially if the technology is not taught very well, as in the case of the compost in Chiquimula. The compost is mostly dirt and dry corn stalks, and is not decomposing. People are also doing too much work on them, turning them over. This is not cost effective. Then there was the problem with the planting beds (*camellones*) that ran downhill.

Red tilapia are a favorite idea of one extensionist, but they seem to be working, thanks to the dedication of the extensionist, and the beneficiaries are delighted with them.

The string beans for export seem to be working well.

Las Trojas is a star case, a wonderful example of a community striving to settle new land (part of a large estate) and to make a decent living. Everyone involved with this effort should be congratulated. The Caritas extension agent in Las Trojas is excellent. CRS is helping the people grow string beans, pine, and is using drip irrigation for chilies, besides trying manioc, sweet potatoes and peaches.

The vegetables at Monte Perla are another success, also with an excellent extension agent from Caritas. Monte Perla is another case where a little capital and know-how have helped a community improve what they were already doing: growing nutritious vegetables for the local market. The extensionists in San Marcos know how to make compost. (Although compost does not need a roof, and leaving the roof off saves money. They use local materials, keep the dirt out of them, make the compost near the house and spread it on vegetables.

CRS is also doing a good job with the group in Malacate, although the community has fewer resources to work with. CRS is introducing new ideas like the coffee nursery, black bush beans, gardens, compost, which the local people are enthusiastically trying.

In Tacaná the people have a bit of their own land, but it is quite dry. Still, there is more that could be done with it. New crops and varieties (including fruit trees) could be grown in the rainy season. More animals could be vaccinated. Grain bins should be used.

Other Areas.

The CRS food security program, involving and strengthening the regional Caritas operations and drawing on the support of land tenure, water and sanitation, and other projects, is well structured and implemented. Some specific comments are that the IPTT shows its main indicators yearly in agriculture/income, but not in health- why not both? Adult education/"educacion popular" training for CRS/Caritas staff from the different regions seems to be having positive trickle down effects. The municipal organization/training/gender program was well conceived and organized. However the at least two of three municipal-level technicians in San Marcos did not speak the local language.

Water Management: Management of water resources, especially for provision of potable and irrigation water to food insecure communities, is an area of strength for CRS. This is reflected in the support for large numbers of water and irrigation systems in DAP communities, as well as in their manual on the subject.

Support by CRS for water systems, 2002 - 2005

No.	Comunidad	Familias Beneficiadas	Costos	Fuente financiamiento
1	Costa Rica/Tajumulco/S. Marcos	33	85,675	Fondos propios CRS/GT y Cáritas San Marcos.
2	Nueva Colonia/Tajumulco/S. Marcos	31	94,200	Fondos propios CRS/GT y Cáritas San Marcos.
3	Las Pilas / S. Jose Ojetenan/S. Marcos	35	105,375	Fondos propios CRS/GT y Cáritas San Marcos.

No.	Comunidad	Familias Beneficiadas	Costos	Fuente financiamiento
4	Villa Nueva / Sibinal / San Marcos	27	105,672	Fondos propios CRS/GT y Cáritas San Marcos.
5	Belesquizón/ Tacana / San Marcos	25	61,372	Fondos propios CRS/GT y Cáritas San Marcos.
6	Carrizal / Tajumulco / San Marcos	35	78,650	Fondos propios CRS/GT y Cáritas San Marcos.
7	Yalu/ Sibinal / San Marcos	41	115,172	Fondos propios CRS/GT y Cáritas San Marcos.
8	Pajales /Cubulco / Baja Verapaz	113	15,020	Fondos Propios CRS/GT y Min. Salud Pública.
9	Pachijul / Cubulco / Baja Verapaz	25	*	Fondos Propios CRS/GT e INFOM
10	Pacani / Cubulco / Baja Verapaz	41	1,974	Fondos Propios CRS/GT y Min. Salud Pública.
11	Xinacati II / Cubulco / Baja Verapaz	30	52,546	Fondos Propios CRS/GT, Plan Internacional, INFOM, comunidad, municipalidad de Cubulco
12	Chuachacuxa / Cubulco/ Baja Verapaz	95	*	Fondos Propios CRS/GT e INFOM
13	San Antonio Chivac/ Salamá/ B. V.	113	*	Fondos Propios CRS/GT e INFOM
14	Rodeo las Vegas/ Cubulco/B. Verapaz	61	15,194	Fondos Propios CRS/GT y Min. Salud Pública
15	Xicanti I / Cubulco/ Baja Verapaz	14	2,000	Fondos Propios CRS/GT y Min. Salud Pública
16	Chirramos / Cubulco / Baja Verapaz	109	6,667	Fondos Propios CRS/GT, Ministerio de Salud Pública e INFOM
17	Chuautulul/ Cubulco / Baja Verapaz	55	34,207	Fondos Propios CRS/GT, Ministerio de Salud Pública e INFOM
18	Portezuelo Hondo/Cubulco/B. V.	28	10,249.28	Fondos Propios CRS/GT, Min. Salud Pública
19	Ixcayan / Salamá/ Baja Verapaz	48	20,000	Fondos Propios CRS/GT, Min. Salud Pública, INFOM y Municipalidad de San Jerónimo.
20	Soledad/ Panzos/ Alta Verapaz	99	17,175.17	Fondos Propios CRS/GT, Médicos del mundo, Min. Salud Pública y Municipalidad de Panzos.
21	Piedras Blancas Patzijon/ Cubulco/ B. V.	44	*	Fondos Propios CRS/GT y Min. Salud Pública
22	Chuautulul/Cubulco/ Baja Verapaz	55	35,260.00	Fondos Propios CRS/GT y Min. Salud Pública
23	Pichal / Cubulco / Baja Verapaz	38	10,565.71	Fondos Propios CRS/GT y Min. Salud Pública
24	Chitomax / Cubulco / Baja Verapaz	17	4,642.85	Fondos Propios CRS/GT y Min. Salud Pública
25	Rodeo Las Vegas/Cubulco/B. Verapaz	29	2,238.07	Fondos Propios CRS/GT y Min. Salud Pública
26	Las Cuevas / Granados / Baja Verapaz	30	4,206	Fondos Propios CRS/GT, Ministerio de Salud Pública y municipalidad de Cubulco.
27	El Colmenar/ Granados/ Baja Verapaz	45	16,527	Fondos Propios CRS/GT, Ministerio de Salud Pública y municipalidad de Granados.
28	Ixchel / Granados / Baja Verapaz	10	930	Fondos Propios CRS/GT
29	Rodeo Las Vegas/Cubulco/B. Verapaz	20	26,725	Fondos Propios CRS/GT y Min. Salud Pública.
30	Piedras Blancas Alibalabaj/Cubulco/B. V.	20	13,825	Fondos Propios CRS/GT / y las Cáritas.
31	Secacao / Chisec / Alta Verapaz	15	15,000	Fondos Propios CRS/GT / y las Cáritas.
32	San Isidro / Chisec / Alta Verapaz	58	20,000	Fondos Propios CRS/GT / y las Cáritas.
33	Carreché Sechina/Chisec/Alta Verapaz	62	2,500	Fondos Propios CRS/GT / y las Cáritas.
34	Chinaha Zapotillo/Chisec/A. Verapaz	35	42,000	Fondos Propios CRS/GT / y las Cáritas.
35	Chinaticarrillo / Chisec / Alta Verapaz	45	2,000	Fondos Propios CRS/GT / y las Cáritas.
36	Secacao / Chisec / Alta Verapaz	29	6,464	Fondos Propios CRS/GT / y las Cáritas.
37	La Unión I / Zacapa	470	*	Fondos Propios CRS/GT / y las Cáritas.
38	La Unión I /Zacapa	475	*	Fondos Propios CRS/GT / y las Cáritas.

No.	Comunidad	Families Beneficiadas	Costos	Fuente financiamiento
39	La Unión II / Zacapa	425	*	Fondos Propios CRS/GT / y las Cáritas.
40	La Unión II / Zacapa	425	*	Fondos Propios CRS/GT / y las Cáritas.
41	Chucte Montaña / Olopa / Chiquimula	15	*	Fondos Propios CRS/GT / y las Cáritas.
42	Filincas Camotán / Chiquimula	35	*	Fondos Propios CRS/GT / y las Cáritas.
43	Cantón quebrada La Unión / Zacapa	23	*	Fondos Propios CRS/GT / y las Cáritas.
44	Tapuan Camotán / Chiquimula	55	*	Fondos Propios CRS/GT / y las Cáritas.
	TOTALES	3533	Q1,024,031.01	* En proceso, por lo cual no se contabilizaron

Micro Irigation Systems supported by CRS, 2002-2005

No.	Tipo	Comunidad	Families	Costos	Fuente financiamiento
1	Goteo	Caserio Llano Grande /San Pedro Sacatepeque /San Marcos.	12	Q5,000	Donación
2	Goteo	Dos Quebradas / Camotán / Chiquimula	6	Q2,300	Fondos Propios CRS/GT y Cáritas.
3	Goteo	Ushurjá/ Camotán / Chiquimula	6	Q2,300	Fondos Propios CRS/GT y Cáritas.
4	Goteo	Despoblado/ Camotán / Chiquimula	6	Q2,300	Fondos Propios CRS/GT y Cáritas.
5	Goteo	Pashapa/	6	Q2,300	Fondos Propios CRS/GT y Cáritas.
6	Aspersión	Chuachacuxa/ Cubulco/ Baja Verapaz	12	Q1,700	Fondos Propios CRS/GT y Cáritas.
7	Aspersión	La Laguna, Patzijon/Cubulco/B. Verapaz	15	Q1,700	Fondos Propios CRS/GT y Cáritas.
8	Goteo	Patuy, Cubulco/ Baja Verapaz	15	Q2,300	Fondos Propios CRS/GT y Cáritas.
9	Aspersión	Patuy, Cubulco/ Baja Verapaz	15	Q1,700	Fondos Propios CRS/GT y Cáritas.
10	Aspersión	Chirramos/ Cubulco / Baja Verapaz	12	Q1,700	Fondos Propios CRS/GT y Cáritas.
11	Goteo	Xicanti II / Cubulco / Baja Verapaz	10	Q2,300	Fondos Propios CRS/GT y Cáritas.
12	Goteo	El colmenar / Granados/ Baja Verapaz	20	Q2,300	Fondos Propios CRS/GT y Cáritas.
13	Goteo	Las Cuevas / Granados/ Baja Verapaz	20	Q2,300	Fondos Propios CRS/GT y Cáritas.
14	Goteo	El oratorio/ Granados/ Baja Verapaz	5	Q2,300	Fondos Propios CRS/GT y Cáritas.
15	Aspersión	El oratorio/ Granados/ Baja Verapaz	20	Q1,700	Fondos Propios CRS/GT y Cáritas.
16	Goteo	Las Trojas/ Salamá / Baja Verapaz	12	Q2,300	Fondos Propios CRS/GT y Cáritas.
17	Goteo	San Vicente/Salamá / Baja Verapaz	23	Q2,300	Fondos Propios CRS/GT y Cáritas.
18	Goteo	La Paz I/ Salamá/Baja Verapaz	7	Q2,300	Fondos Propios CRS/GT y Cáritas.
19	Goteo	Secacucub/ Senahu / Alta Verapaz	13	Q2,300	Fondos Propios CRS/GT y Cáritas.
20	Goteo	Carabajal/ Panzos/ Alta Verapaz	12	Q2,300	Fondos Propios CRS/GT y Cáritas.
21	Goteo	San Antonio Chivac/ Alta Verapaz.	7	Q2,300	Fondos Propios CRS/GT y Cáritas.
22	Goteo	Las Cuevas/ Alta Verapaz	5	Q2,300	Fondos Propios CRS/GT y Cáritas.
23	Goteo	Llano Grande / Alta Verapaz	12	Q2,300	Fondos Propios CRS/GT y Cáritas.
24	Goteo	El colmenar / Alta Verapaz	14	Q2,300	Fondos Propios CRS/GT y Cáritas.
25	Goteo	Las anonas	19	Q2,300	Fondos Propios CRS/GT y Cáritas.
26	Goteo	Chivaquito	20	Q2,300	Fondos Propios CRS/GT y Cáritas.
	TOTAL		324	Q59,500	

CRS Indicator Performance Tracking Table - Agriculture and MCH Components

DAP, Life of Project	PROYECTO SEGAPAZ II																	
Impact and Process Indicators	Base-line	Proposed 2002	Achieved 2002	%	Proposed 2003	Achieved 2003	%	Proposed 2004	Achieved 2004	%	Proposed 2005	Achieved 2005	%	Proposed 2006	Target LOP*****	Achieved	%	
Strategic Objective 1: Increase farm-based food availability	Percent increase in corn productivity	36.94 qq/Ha* *	0.00 %	0.00%	0.0%	5.0 %	4.2%	84.0%	10.0 %	9.11%	91.1%	20.0 %	41.0%	205.0%	25.0 %	25%	13.6 %	54.3 %
	Percent increase in bean productivity	17.56 qq/Ha* *	0.00 %	0.00%	0.0%	5.0 %	4.2%	84.0%	10.0 %	9.11%	91.1%	20.0 %	29.0%	145.0%	25.0 %	25%	10.6 %	42.3 %
	# of communities phased out / exited	91.63	0	0	0.0%	0	21	00%	30	12	40.0%	30	30	100.0%	60	60	63	105 %
	% of women in animal husbandry	74.90%	75.0 0%	45.62%	60.8%	75.0 %	72.3%	96.4%	85.0 %	50.0%	58.8%	85.0 %	20.0%	23.5%	85.0 %	85%	47.0 %	55.3 %
	% of women in crop production	16.45%	10.0 0%	18.50%	185%	10.0 %	61.3%	612.6%	20.0 %	29.70%	148.5%	20.0 %	29.0%	145.0%	20.0 %	20%	34.6 %	173.1%
	# of ha protected through forestry, soil conservation or agroforestry practices	0.58	100	361.3	361.3%	250	629.5	251.8%	250	792	316.8%	250	1316	526.5%	250	110 0	309 9	281.7%
	# of families adopting practices on water resource mgmt								300	157	52.3%	300	268	89.3%	0	600	425	70.8 %
Intermed. Result 1.2 Improved post harvest management	Number of farmers adopting improved crop storage practices	84	50	178	356%	100	299	299.0%	100	389	389.0%	100	265	265.0%	150	500	113 1	226.2%
Intermed. Result 1.3 Better insertion of products into the marketing system	% improvement in selling prices	Q 159	2.00 %	9.25%	462.5%	4.0 %	19.7%	491.3%	6.0 %	11.4%	190.5%	8.0 %	13.0%	162.5%	10.0 %	10%	11.0 %	110.2%
	# of farmers accessing improved marketing services	15	120	425	354.2%	540	350	64.8%	144 0	632	43.9%	300 0	3491	116.4%	500 0	500 0	489 8	98.0 %
	Percent of women participants in mkting	2.91	25.0 0%	10.67%	42.7%	25.0 %	33.7%	135%	25.0 %	9.00%	36.0%	25.0 %	53.00%	212.0%	25.0 %	25%	21.3 %	85.1 %

DAP, Life of Project		PROYECTO SEGAPAZ II																
	Impact and Process Indicators	Base-line	Proposed 2002	Achieved 2002	%	Proposed 2003	Achieved 2003	%	Proposed 2004	Achieved 2004	%	Proposed 2005	Achieved 2005	%	Proposed 2006	Target LOP*****	Achieved	%
Strategic Obj. 2: Improve health & nutrition of children < 3 & pregnant / lactating women	% global malnutrition in children < 3, (weight/age) with -2 SD or more	57.82							55	46.5	11.3***	TBD*	TBD*	TBD*		50	46.5	11.3****
Intermediate Result 2.1 Integrated prevention & management of principal illnesses of children and pregnant/lactating women	% chronic malnutrition in children < 3, (ht/age) with -2 SD or more	70.56							65	51	19.6***	TBD*	TBD*	TBD*		60	51	19.6****
	% of babies breastfed exclusively for 6 mo.	58.68							65	53.5	82.3%	TBD*	TBD*	TBD*		85	53.5	62.9%
	% babies that begin complementary feeding at 6 months	21.72							35	77.5	221.5%	TBD*	TBD*	TBD*		75	77.5	103.3%
	% children >6 mo. that receive an equal or higher amount of food during illness	0							25	30	120.0%	TBD*	TBD*	TBD*		45	30	66.7%
	% of babies that begin breastfeeding within one hour of birth	30.6***							50	78	156.0%	TBD*	TBD*	TBD*		75	78	104.0%
	% children diagnosed w/ pneumonia treated at health centers	13*****							70	22	31.4%	TBD*	TBD*	TBD*		85	22	25.9%
	% children, 12-24 mo., vaccinated measles	71.02							85	67	78.8%	TBD*	TBD*	TBD*		90	67	74.4%
	% pregnant women with prenatal care	73.31							85	77	90.6%	TBD*	TBD*	TBD*		90	77	85.6%
Intermediate Result 2.2	Percent of HH with potable water	4.04							8	12	150.0%	TBD*	TBD*	TBD*		40	12	30.0%

DAP, Life of Project		PROYECTO SEGAPAZ II																
Impact and Process Indicators	Base-line	Proposed 2002	Achieved 2002	%	Proposed 2003	Achieved 2003	%	Proposed 2004	Achieved 2004	%	Proposed 2005	Achieved 2005	%	Proposed 2006	Target LOP*****	Achieved	%	
	Increased access to potable water/sanitation	% of HH using latrines	79*****						92	83	90.2%	TBD*	TBD*	TBD*		95	83	87.4%
% population with proper hand washing behavior		72.6***						99.72	74	74.2%	TBD*	TBD*	TBD*		99.7	74	74.2%	
Strategic Obj. 3: Increase access to food resources for vulnerable groups	Number of rations distributed to disaster victims																	
Intermed. Result 3.1 Provision of emergency & short-term food needs of disaster victims		n/a				TBD*			TBD*			TBD*	TBD*		TBD*			

* TBD will be measured at baseline, mid-term and final evaluation periods

** Quetzales per cuerda, using exchange rate of US\$ 1= Q 7.6

*** Quintales per hectare

****These two values represent de percentage points on malnutrition prevalence reduction.

***** information crossed into baseline (multiple variables)

***** Final global goals according to DAP II 06 amendment

Annex D: Individual Report, Save the Children

Maternal Child Health and Nutrition

Save the Children took over direct implementation of the program from a local affiliate in 2003, which means they have only been implementing for about two and a half years. While there are still extremely high levels of malnutrition in their project areas, their growth monitoring data is starting to show trends of improvement. (See Annex K.) Overall, development in El Quiché still lags behind the rest of the country due to nearly two decades of social and economic isolation due to the civil violence.

The integration model of Save the Children is exceptional. They are focusing on increasing access to nutrient-dense food at the household level through gardens, and more importantly, through poultry, rabbits and milking goats, all of which give the families animal foods high in protein, iron and zinc. Save is giving the milking goats directly to families of malnourished children and tracking the weight gain of those children closely. It will be interesting to see how much impact the goat milk has on growth. On one chart the evaluation team saw, the weight gains were impressive, as much as a pound a month in some children more than one year old. The immediate access to high quality food produced at home and the improvements in post-harvest storage at the household level should have both short-term and long-term impact on food security. (For more details on this effort see the agriculture sections of this report.) Save may want to track the nutritional status of children in families with gardens, improved grain storage to compare the impact of these interventions with each other and for assessing their efficacy in relation to the effort and cost involved.

For the past two years, Save has been using “Nutritional Schools” as a means to promote behavior change among mothers of malnourished children. Initially, mothers were coming to the Nutritional Schools every day for a certain period of time. They prepared and served food to their children; a mix of commodity foods and locally available foods. They also received health and nutrition information. The concept was basically good, but Save was unable to document impact so has changed the strategy to two sessions a week, only one of which involves food preparation. The other session is a time of reflection and discussion of what was learned in the previous cooking session. Before proceeding farther, Save may wish to identify the actual illness and feeding issues among the families of the malnourished children and re-focus educational messages. Since the Save food ration is quite large, and families now have access to home-produced foods, it seems the malnutrition issues may be more related to feeding behaviors or repeated illness than to food insecurity. Save may also wish to try an actual PD/Hearth session on one community in which they have not yet held the Nutritional Schools.

For the most part, the Save program has only collaborated with the MSPAS health services for immunizations and micronutrient distribution, however, in some cases, the food distribution is being held at the health facility and MSPAS personnel are invited to participate in presenting educational sessions to participants. This is an excellent step, providing that Save technical staff assure consistency and quality of messages ahead of time. For example, one rural health technician was going to present a topic to a group, however, his chosen topic for the day was simply “nutrition,” which was much too broad to be meaningful.

Save has some excellent field staff from the regional level on down. The technicians may need more training in community empowerment and in supportive supervision to enable committees and the mother guides to become even more effective change agents. One aspect of this would be more local analysis and use of the data collected in the very comprehensive information system.

Agriculture and income generation

Save the Children has a strong agricultural program, with a focus on food-and-family. They have several pieces of original technology; they are the only PVO that has thought of making drinking fountains for hens made from

clay pots and used soft-drink bottles, instead of buying plastic watering devices. The hens themselves are a wonderful idea, ensuring that families have a handful of high-protein eggs to eat every day.

Save the Children has introduced new bush beans, which families are planting (although they are still planting their old climbing beans—*frijol de milpa*) as well.

Goats—like other things—may be subject to user failure. In theory it is a good idea to milk goats to feed small children, but the goat may fail to mate, may abort, or the family may let the kid goat suckle too much of the milk. The family may feed the milk to the whole family (*arroz con leche*) or may feed another child, not the baby. Save the Children had the foresight to gather data on the weight gain of children in families with goats. Analyzing those numbers will let the staff see if the goats helped the children gain weight or not.

Palqui, Uspantán is a good example of what can be done with a community on semi-arid land. They have chicken coops, grain bins, corn cribs, maize dryers, organic fertilizer, live barriers for soil conservation, and (although it is part of another project) the people use what precious irrigation water they have for growing string beans for export. Save was perceptive enough to realize that the metal grain bins were not working well in humid areas, and started recommending improved corn cribs and maize dryers for wet places, and grain bins for dry ones. (This suggests that quality control is working, even if it is verbal and not written).

Save the Children keeps lists of which technologies people have used. In each community only one or two people have tried raising earthworms. They have no doubt figured out that the worms are not especially helpful.

The wood-burning stoves are built of brick, raised to waist height. They have a metal grill on the top with removable fire-rings, like a Franklin stove. They are comfortable to use, and help families save a third of their firewood (as opposed to a fire on the floor). However the grills are expensive to replace.

Drip irrigation for 400 square meters of land effectively allows a family to grow vegetables for their table, and to sell. The gardens have several species each, which maximizes how many vegetables families can eat at home, and reduces market risk (from low prices).

The Victorious Women of Acul are successful, but a bit more could be done to help them count costs. For example, they feed household maize to their chickens, without giving it a value. The maize may well be worth more as chicken feed than as tortillas, but a business-like attitude demands that the women know the cost and benefit of feeding their family maize to commercial chickens.

Save the Children's beneficiaries pay back part of the cost of capital investments (e.g. plastic irrigation tanks) into a community fund. Save needs an exit strategy, to insure that when the project ends the funds are well-managed.

Save's microcredit program, now handled through Genesis Empresarial, was seen in action at just one site. There was some doubt as to the quality of technical support provided. Since Genesis is a business, their main concern is that the loans perform. They have done less work to teach the women to count costs. For example, the women had bought chicks on credit, fed them maize from the family food storage, and then sold the chickens, but they had no idea what it cost them to feed the chickens. We were not sure that Genesis is actually raising incomes, but we gave them the benefit of the doubt, because we did only see that one site (Annex J.22).

Other Areas.

Save the Children's relatively compact operations seem to be well managed and well monitored. However, the unit cost issue raised in Section 4.1.1 needs to be looked into, as does the use of larger rations if, as mentioned in Section 4.2.2, they do not result in better growth of children.

Save the Children – 2005 INDICATOR PERFORMANCE TRACKING TABLE (IPTT)

Indicator	Base-line	FY 01			FY 02			FY 03			FY 04			FY 05			FY 06	LOA target (Total Household Beneficiaries: 6,200)
		Target	Achieved	Achieved vs. Target	Target													
Goal. Increased food security in El Quiche Department																		
<i>Impact Indicator 1.</i> Prevalence of stunting in children between 6 and 36 months	76%		69%			67.7%			74.6%			74.8%			74.6%			
SO 1. Improved household food availability																		
IR 1.1. Enhanced Basic Food Production																		
<i>Impact Indicator 1.1.1:</i> Average yield of maize and beans	1336 pounds/Ha maize and 89.5 pounds/Ha beans																	15% increase in average yield of maize and beans
<i>Monitoring Indicator 1.1.2:</i> % HHs using improved seeds	55%		0.20%		2%	2%	100%	16%	16.32%	102%	13%	13.3%	102%	13%	27.3%	210%	See Note 10	50% (3100) of HHs using improved seeds
<i>Monitoring Indicator 1.1.3:</i> % HHs using improved agricultural practices	25.2%		6.49%		1.58	1.97%	125%	5.45%	10.0%	183%	5.7%	8.90%	156%	2.50%	7.95%	318%		55% (3410) of HHs using at least one improved agricultural practice
IR 1.2. Diversified crops and livestock systems																		
<i>Impact Indicator 1.2.1.</i> % HHs consuming animal at least twice per week	90%														16%			40% (2480) of HHs consume animal products at least twice per week
<i>Monitoring Indicator 1.2.2.</i> % HHs with vegetable gardens producing at least three different crops	8.7%	15%	61%	406%	40%	40%	100%	5%	5.15%	103%	15%	13.2%	88%	17%	24.5% 11	146%		40% (2480) of HHS with vegetable gardens produce at least 3 different crops.
<i>Monitoring Indicator 1.2.3.</i> % HHs selling animals or animal products	33.5%							2%	2.85%	143%	4%	2%	50%	4%	37%	925%		45% (2790) of HHs selling animals or animal products
<i>Monitoring Indicator 1.2.4.</i> % HHs implementing at least one agroforestry technique	24.9%		14%		17.67	14%	79	7%	10.89%	156%	6.2%	5.9%	95%	5.3%	3.5%	66%	1.2%	75% (4650) of HHs implementing at least one agroforestry technique
IR 1.3. Improved post harvest and marketing																		
<i>Impact Indicator 1.3.1.</i> % annual post harvest losses of maize and/or beans	41.4%																	Reduce 15% annual post harvest losses of maize and/or beans

¹⁰ Those indicators for which LOA targets have been reached, have no FY06 target, since only follow up activities will be implemented, to assure their sustainability

¹¹ Results reported for FY01 and 02 refer to families receiving seeds to plant home gardens; results for FY03 and on, refer to established home gardens

Indicator	Base-line	FY 01			FY 02			FY 03			FY 04			FY 05			FY 06	LOA target (Total Household Beneficiaries: 6,200)
		Target	Achieved	Achieved vs. Target	Target													
<i>Monitoring Indicator 1.3.2.</i> % HHs using improved grain storage techniques	90%		7.78%		2..33%		7%	13.44%	192 %	6%	10%	166%	8%	8.56%	107%	4.89%	56% (3472) of HHs using improved grain storage techniques	
<i>Monitoring Indicator 1.3.3.</i> # of improved grain storage units constructed	102 Units		386 U		116 U		1050 U	723 U	69%	400	99 U	25%		345 U			1,426 improved grain storage units constructed	
SO 2: Improved biological utilization of food																		
<i>Impact Indicator 2.1.</i> Prevalence of underweight in children 6 to 36 months	38.0%		22%		36.5%			40.3%				44.5 %		42.1%			15% reduction of prevalence of underweight in children 6 to 36 months	
IR 2.1. Improved access and quality of health services																		
<i>Impact indicator 2.1.1.</i> % children fully immunized	41.0%											66%		54%			75% (3900) of children fully immunized	
<i>Monitoring indicator 2.1.2.</i> % children vaccinated against measles according to recommended timeline	41.0%		N/M		N/M			51.6%				57.8 %		74%			75% of children vaccinated against measles according to recommended timelines	
<i>Monitoring Indicator 2.1.3.</i> % program communities with functioning "casas base"	00%	30%	30.60 %	102 %	15%	15.3%	102%	50 %	26.0%	52%	4%	7.5%	187%	1.5%	1.5%	100%	See Note ¹² 80% (63) program communities with functioning Casas Base	
IR 2.2. Improved knowledge and practices in disease prevention and control																		
<i>Impact indicator 2.2.1:</i> % infants under 6 months who are exclusively breastfed	50.0%													64%			75% (375) infants under 6 months who are exclusively breastfed	
<i>Impact Indicator 2.2.2.</i> % children with diarrhea who are continuously fed during illness	35.8%													58%			60% children with diarrhea who are continuously fed during illness	
IR 2.3. Improved diet and nutrition																		
<i>Impact indicator 2.3.1.</i> Average number of different foods/food groups consumed	61.0%																75% increase in average of different foods/food groups consumed	

¹² Given that all communities have a casa base, either built by the project or functioning in a community facility, no target is shown for FY06

Indicator	Base-line	FY 01			FY 02			FY 03			FY 04			FY 05			FY 06	LOA target (Total Household Beneficiaries: 6,200)
		Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	
SO 3. Improved household access to food by increasing economic opportunities																		
IR 3.1. Increased access to credit and savings																		
<i>Impact Indicator 3.1.1.</i> % of program communities with access to DAP credit and savings services	0.0%		2%		19%		30%	23%	77%	40%	40%	100%	45%	44%	98%	50%	50% (40) of communities with access to DAP credit and savings services	
<i>Impact Indicator 3.1.2.</i> Operational sustainability	0.0%		1%		9%		40%	22%	58%	50%	46%	92%	75%	144.35%	192%	100%	100% operational sustainability	
<i>Monitoring Indicator 3.1.3.</i> Cumulative number of borrowers	0.0%		111		782	1,225	156%	1,813	2,065	114%	2500	3245	130%	3,750	4,819	129%	181	5,000 borrowers
<i>Monitoring Indicator 3.1.4.</i> Cumulative number of savers	0.0%		0		0		950	624	66%	750	1050	140%	1,500	3,394	226%		2,500 savers	
<i>Monitoring Indicator 3.1.5.</i> % portfolio at risk	0.0%		0%		<5%	<5%	100%	<5%	<5%	100%	<5%	<5%	100%	<5%	<5%	100%	<5%	<5% portfolio at risk
SO 4. Protected Livelihood Systems																		
IR 4.1. Improved HH and community infrastructure																		
<i>Impact Indicator 4.1.1.</i> Quantity of water use per person per day	6 lts																	Increase water use 50% liters per person per day
<i>Monitoring Indicator 4.1.2.</i> % HHs with access to adequate sanitation facilities (latrines)	22.7%	10%	1%	10%	9%	4.5%	50%	25%	17.98%	72%	5%	5.9%	118%	5%	7.7%	154%	.22%	60% (3720) HHs with access to adequate sanitation (latrines)
<i>Monitoring Indicator 4.1.3.</i> % HHs with access to an improved water source	73.8%					5.7% (FY 1+2)		2%	2%	100%	2%	2.5%	125%	1%	3.15%	315%		85% (5270) HHs with access to an improved water source
<i>Monitoring Indicator 4.1.4.</i> % HHs with access to an improved wood burning stove	16.6%					25% (FY 1+2)		10%	6.97%	70%	7.5%	7.9%	105%	5%	7.47%	150%	1.05%	65% (4030) HHs with access to an improved wood burning stove
IR 4.2. Rehabilitated environment																		
<i>Impact Indicator 4.2.1.</i> Number of reforested hectares	NM					113			67			21.89			32.65			250 reforested hectares

Indicator	Base-line	FY 01			FY 02			FY 03			FY 04			FY 05			FY 06	LOA target (Total Household Beneficiaries: 6,200)
		Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	Achieved	Achieved vs. Target	Target	
<i>Monitoring Indicator 4.2.2.</i> % HHs using soil or water conservation techniques	37.0%				8% (FY 1+2)		5%	6%	120 %	4%	7.48 %	187%	150%	5.94%	396%		60% (3720) HH using some form of soil or water conservation technique	
IR 4.3. Improved physical access																		
<i>Impact Indicator 4.3.1.</i> % communities with improved vehicle access	NM																25% (20) participant communities with improved vehicle access	
<i>Monitoring Indicator 4.3.2.</i> Number of km of roads rehabilitated	NM	30	27.5	92%	30	68	227%	51	45.4	89%	25	27.6	110%	25	26.6	106%	190.5 km of roads rehabilitated	

Annex E: Schedule of Activities

E.1 Itinerary

Date, location & CS	Communities	Activities
Tuesday, January 24	Guatemala City	Meetings with USAID
Wed., January 25	Guatemala City	
Thursday, January 26	Guatemala City	Team planning meeting with CARE, SHARE, CRS, Save the Children, USAID
Friday, January 27 San Juan Comalapa, Chimaltenango, SHARE	Paquixic, Paya, Patzay	4 income generation projects, 2 MCH/N, food distribution committee, health committee, 2 food distribution sites, 2 COCODES, local NGO partner ASOGUADE
Monday, January 30 San Juan Ermita, Jocotán y Camotán, Chiquimula CRS	Camotán Caritas	Area distribution center, mayor
	Tesoro Abajo, Jocotán	Food commission, 2 CHWs, home visits to mothers, COCODES (incipient: docs lost in a local swindle), compost
	Ticanlú, San Juan Ermita	2 CHWs, home visits, health commission, compost, COCODES
Tuesday, January 31 Chiquimula, CRS	Shupá, Camotán	CHW, health commission, home visits to mothers, COCODES, compost, tilapia (fish farm)
Wednesday, February 1 Salamá, Baja Verapaz, CRS	San Vicente	Food committee, 2 CHWs, home visits to mothers, latrines, COCODES, string beans, garden
	Las Trojas	Focus group of mothers, home visits to mothers, string beans, pine reforestation, micro-irrigation, manioc, sweet potato, COCODES
Thursday, February 2 Rabinal, Baja Verapaz	Chuaperol	NGO partner Flor de Naranjo, 1 community facilitator, 1 CHW, focus group of women, GMP session, convergence center, weaving for income generation
SHARE	Pachicá	FFW infrastructure: road, micro irrigation for loroco
	Raxjut	FFW road, COCODES
	Chiticoy	CHW, food commission, focus group of women, GMP session, income generation: egg incubator
Friday, February 3 Tucurú, Alta Verapaz CARE	Tucurú	MSPAS – district health staff, municipal health coordinator, NGO partner, SIAS, project technical staff, mayor's office
	Los Pinos	Food distribution center, 2 CHWs, food commission, health committee, home visits to women, convergence center, coffee dryers and pulpers, cardamom, COCODES
	Cucanján	3 CHWs, health committee, food storage, food commission, home visits to women, health post nurse, COCODES
	Pacajche	Tilapia, poultry, fruit and vegetables
Saturday, February 4 San Pedro Carchá, Alta Verapaz: CARE	Chiyó	3 CHWs, food/health commission, food storage, women, NGO partner (SIAS), health educator, COCODES, gardens, weaving, coffee cooperative
	Caquigual	Food commission, health commission, health educator, <i>Sala situacional</i> in health post, COCODES, Ag -
Tuesday, February 7 San Antonio Ilotenango, El Quiché, SAVE	Xebaquit	Food committee, field technician, focus group of women, COCODES, chicken coops, goats, gardens
Wednesday, February 8 Uspantán, El Quiché, SAVE	Palqui Quizachal	Food committee, home visits, mother guide, CHWs, chickens, grain bins, dead barriers (soil conservation), goats, beans, 2 COCODES, micro irrigation
Thursday, February 9 Nebaj, El Quiché SAVE	Vilacamá	Nutritional school, focus group, home visits, mother guide, goats, gardens, corn cribs, drip irrigation, wood stoves, COCODES
	San Juan Acul	Vice-mayor, observed education session for women, home visits, mother guide, health post, women's credit group, gardens, drip irrigation, chickens, corn cribs, rabbits, COCODES
Friday, February 10 Cotzal, El Quiché SAVE	Cajixay	Observed health education session, food committee, health technician, home visits to mothers, mother guides, corn cribs, grain bins, gardens, drip irrigation, chickens, beans, COCODES
	San Felipe Chenlá	Food committee, goats, gardens, wood stoves, mother guide, COCODES
Monday, February 20		Travel to San Marcos
Tuesday, February 21 Comitancillo, San Marcos SHARE	Comitancillo	District health director
	Taltuiche	Mothers' group, CHWs, food committee, food storage, tomato greenhouse, forest nursery, weavers, COCODES
	Las Flores	Home visits to mothers, CHWs, health/food committee, food storage, tomato greenhouse, forest nursery, COCODES

Date, location & CS	Communities	Activities
Wednesday, February 22 Concepción Tutuapa, San Marcos, CARE	Sichivilá Talhuito	Health post, health committee, food commission and food storage, volunteer health promoter and TBA, peach orchard, sheep, pigs, turkeys, live barriers of foxtail grass, food commission and food storage, home visits to mothers, health committee; 2 COCODES
Thursday, February 23 Tajamulco, San Marcos CRS	Monte Perla Malacate	Focus group with mothers, home visits to mothers, CHWs, health committee, COCODES, vegetable seedling greenhouse, commercial vegetables, forest nursery, coffee trees & nursery, compost, damage from Hurricane Stan, health committee, home visits to mothers, CHWs, COCODES
Friday, February 24 Tacaná, San Marcos, CRS	Canibalillo	Home visits to mothers, CHWs, health committee, COCODES, forest tree nursery, live barriers of foxtail, animal vaccination, chickens, potatoes, Sodis
Monday, February 27 Cuilco, Huehuetenango		Health center director and nurse, mayor
Tectitán, Huehuetenango CARE	Agua Caliente	Focus group of mothers, home visits to mothers, food distribution committee, storage, health committee, health educator, grain bins, chickens, Stan damage
Tuesday, February 28 Cuilco, Huehuetenango	Corinto	Food distribution committee, focus group of mothers, home visits to mothers, chickens, commercial tomatoes, gardens, drip irrigation, COCODES
San Ildefonso Ixtahuacán, Huehuetenango	Casaca	Health center nurse, food distribution and GM committees, health committee, home visits to mothers, health educator, COCODES, mayor's office, goats, turkeys, gardens, flowers, mushrooms
Wednesday, March 1 Todos Santos, Huehuetenango	Villa Alicia, Tuicoy, Los Planes, Chicoy	Observed growth monitoring session, focus group of mothers, CHW, COCODES, mushroom project, laying hens
March 2-7		Writing; preparation of presentation
Wednesday, March 8	Guatemala City	Presentation and discussion of preliminary results with PVOs, USAID

Total: 21 municipalities and 38 communities

E. 2 Evaluation team participants

Name	Affiliation	Role
Charles Schnell	TANGO	Team Leader
Jeffery Bentley	TANGO	Agriculture and Income Generation
Judiann McNulty	TANGO	Maternal-Child Health and Nutrition
Elizabeth Vega	SHARE	Food Program Director
Leticia Choroy	SHARE	MCH
Mardoqueo Gil	SHARE	Income Generation
José Brígido Tomás	SHARE	Regional Coordinator
Edwin Rojas	SHARE	Regional Health Advisor
Secundino Terraza	SHARE	Technical Coordinator
Pedro García	Flor de Naranjo	Executive Director
Jorge Juárez	ADIPO	Coordinator of Rural Development Program
Patty Morales	ADIPO	Administration
Roberto de Paz	Catholic Relief Services	Program Manager
Gilda Walter	Catholic Relief Services	Nutritionist
Mónica Rodríguez	Catholic Relief Services	M&E Specialist
Luis Rohr	Catholic Relief Services	Agriculture & Environment Advisor
Jorge Maldonado	Catholic Relief Services	Health Coordinator
Salvador Ayala	Catholic Relief Services	Water/Sanitation Advisor
Erwin Castro	Catholic Relief Services	Field Monitor Food Distribution
Nelson Guzmán	Catholic Relief Services	Regional Agricultural Specialist
Selvin Sancé	Cáritas Zacapa-Chiquimula	Regional Coordinator
Marina de Lantán	Cáritas Zacapa-Chiquimula	Coordinator Health and Water/Sanitation
Edgar Hernández	Cáritas-Verapaces	Regional Director
Mario Arévalo	Cáritas Verapaces	Project Manager
Ronaldo Cuxum	Cáritas Verapaces	Coordinator Health and Water/Sanitation
Rónel Ramírez	Cáritas San Marcos	General Project Coordinator
Jorge Rodas	Cáritas San Marcos	Supervisor of Food Distribution
Alma Leticia López	CARE Guatemala	Monitoring and Evaluation
Orly Lam	CARE Norte	Technical Advisor Health
José Aquino	CARE Norte	Technical Advisor Agriculture
Armida Tejada	CARE Norte	Technical Advisor Governance
Julio Gálvez	CARE Tucurú	Food Manager
Dra. Nancy de Kress	MSPAS Carchá	Director of Carchá District
Edwin Catún	MSPAS Carchá	Rural Health Technician
Luis Castillo	CARE Huehuetenango	Corridor Governance Manager
René Patal	CARE Huehuetenango	Corridor Agriculture Manager
Inés Camas	CARE Huehuetenango	Corridor Health Advisor
Rodrigo Arias	Save the Children	Food Security Program Manager
Paige Harrigan	Save the Children	Regional Food Security Specialist
Claudia Nieves	Save the Children	Nutritionist
Leonardo Argueta	Save the Children	Program Manager
Alejandro Calí	Save the Children	Agric. and Environment Coordinator
Abel Gálvez	Save the Children	Acting Health/Nutrition Coordinator
Gabriel Santos	Save the Children	Auditor Food and Logistics
Daniel Sanchez-Bustamante	USAID Regional Office	Food for Peace Officer

Annex F: Breaking the Cycle of Migration

For a century highland Guatemalans have migrated seasonally to pick coffee, in lower elevations of Guatemala, Chiapas and Honduras. While many Guatemalans, including government officials, believe that people migrate out of tradition or habit, the plain fact is that no one migrates unless poverty forces them to. When their own harvest is not enough, picking coffee to earn cash is their only alternative.

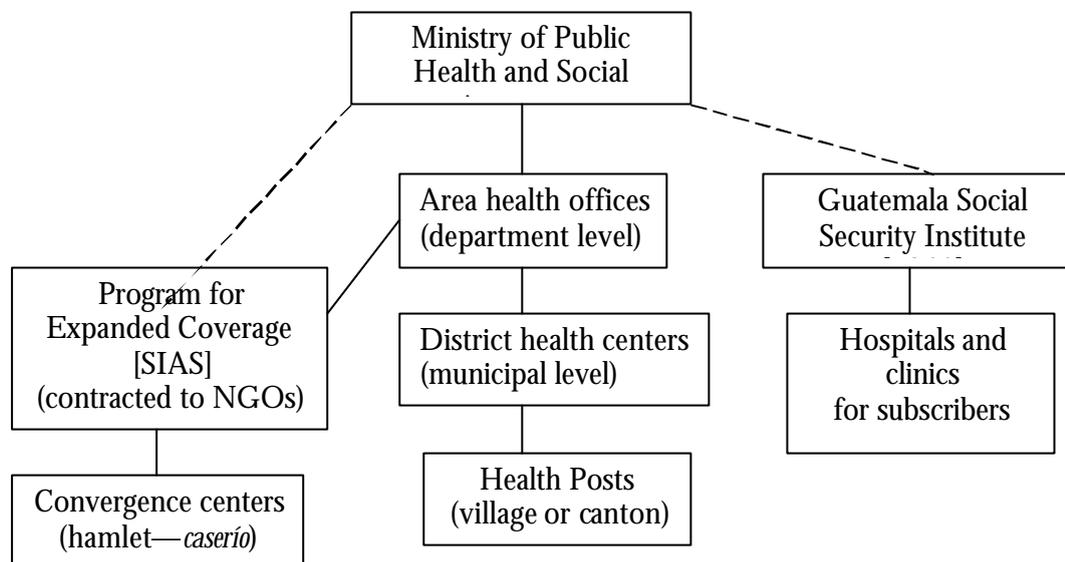
Since they are paid by the amount picked, women and children often accompany the men for up to four months on the plantations. Coffee picking starts in late August or September, nearly two months before the end of school, which means that children who go are taken out of school and will not move up to the next grade. Most never finish primary school. Living conditions on the coffee plantations are depressing; open, crowded barracks, where families sleep on boards or the bare ground. There is little water and often no bathroom facilities. Since they are expected to be in the groves from daylight to dark every day but Sunday, there is no time to cook, let alone go to a market for fresh produce.

Health facilities in communities of origin have long reported dengue, malaria, and gastrointestinal illnesses among families returning from working on 'the coast.' While reviewing growth monitoring records, this evaluation team saw that all well-nourished children who migrated with their families in late 2005, returned malnourished; they either failed to reach their expected weight gain, or were below the cut-off (-2z scores) on the growth curve. The parents' nutritional status must also marginal upon return, which affects their productivity and ability to care for their family.

Because of their low years of schooling and the because of the long dry season which creates a 'down time' in highland agriculture, these families have been trapped in a long, vicious cycle. In Baja Verapaz, Quiché, Huehuetenango and San Marcos, the evaluation team saw how the income-generating agricultural interventions of the CSs allowed families to finally escape from this cycle. As one example, a health committee member in Octal told how the project's technical assistance to start growing cabbages with micro-irrigation had enabled him to earn Q. 700 (\$93) last fall. This was more than the Q. 400 (\$53) he and his wife would have earned picking coffee, so for the first time in his life, he didn't have to migrate. His wife was relieved to be able to stay home and was happy that their 10-year-old son had finally been promoted to second grade.



Annex G: Guatemala Health Delivery System



Guatemala is divided into seven administrative departments (similar to provinces or states). Each department is divided into municipalities which consist of a main city or town and the surrounding area including villages (aldeas), hamlets (caseríos), and areas with dispersed settlement (cantons).

The Ministry of Public Health and Social Assistance (MSPAS) has seven administration areas, which correspond roughly to each department. For many years, all health services were delivered directly by the MSPAS through the Health Centers and Posts or through IGSS, and employer-paid health insurance system with its own clinics and hospitals.

In 1997, the government began the Expanded Coverage Program (ECP) to better serve rural residents. The ECP is delivered through contracting municipalities or NGOs to cover a certain rural area with all primary care services. Most NGOs hire medical personnel who rotate through the area, convening patients at locations convenient to several hamlets or cantons. These are known as convergence centers.

Annex H Relation of DAPs to USAID Country Plan

The Country Plan is structured around three Strategic Objectives, each with a set of intermediate results. The activities of the four DAPs support each SO in a variety of ways, especially at the local level. There are also relevant aspects in the crosscutting objectives and emergency adaptability provisions. These relationships may not always have been recognized; nor have the DAPs established regular communication about them with their SO counterparts at USAID. In developing MYAP proposals, each CS should review the country plan with an eye to strengthening the support of the food security program for relevant SOs and IRs as well as for crosscutting objectives. The following paragraphs summarize the connections.

In the following paragraphs the language of the USAID Country Plan is matched against examples of the kinds of support provided by the Title II program. The listings of individual DAPs that contribute in specific ways are not intended to be exhaustive, but rather illustrative, to invite further exploration. In many cases the other DAPs will have similar activities, or different ones that support the same objectives.

SO 1: MORE RESPONSIVE, TRANSPARENT GOVERNANCE

A strong case can be made that the Title II program supports the Democracy SO. Democratic government in Guatemala is seen as “not yet effective in ‘delivering the goods’ – [in] ... law and order ... social services, and economic growth. Current political leaders and institutions generally represent narrow interests and have been incapable of addressing the critical problems...” (USAID 2003, p.6). This certainly has been true at the local level, where the DAPs are helping to transform the situation—particularly CARE’s, which includes a component (FORTALEZA) specifically aimed at strengthening democratic processes in municipalities and their communities.¹³ All the DAPs focus to some degree on developing organization, participation, and empowerment at the community level, with CRS and CARE dedicating resources to strengthening the entities that link the communities to the municipal level. Each has actively pursued at the local level tactics identified as effective by USAID.

- “promoting productive engagement between civil society and [local] government and involving civil society as an important partner in achieving results (i.e., building social capital) [CARE at the municipal level; all DAPs with communities and their various civil society organizations]; ...
- “paying attention to the critical factor of political leadership, which includes ... [raising] the rate of participation of women, youth, and ethnic groups ... in a conscious attempt to develop the next generation of leaders [e.g., the leadership training programs of CRS, SHARE, and CARE; Save the Children’s involvement of over 5,000 women in community banks];
- “...developing ... alliances with other donors and the private sector to identify shared objectives, leverage additional resources and ultimately broaden overall impact [all DAPs].”

Intermediate Result 1: Strengthened Rule of Law.

At the local level, the DAPs strengthen rule of law by facilitating basic knowledge of the laws on municipal and community governance, including the procedures, structures, and functions of the democratic institutions those laws establish, like the Community and Municipal Development Councils (COCODES and COMUDEs), the Offices of Municipal Planning (OPM), the municipal forestry, agriculture, and human rights offices, among others. CARE and CRS orient participants to the rights and responsibilities of citizens and of local government instances, covering human rights and due process; all DAPs introduce consensus building and priority setting methods for local development initiatives.

¹³ Note however that proposals from other PVOs to work in the SO1 area were not approved by USAID in each of the past two rounds of DAPs and that CARE’s was restricted. See comments in Section 4.4.

Illustrative DAP contributions to SO1 goals:

- Increased public support for investigation and prosecution of corruption in local government [all DAPs, by training committee members in rights and duties, planning and control of budgets, and social auditing; CARE more directly through its municipal strengthening program];
- Promotion of use of legal processes rather than extra-legal means (from cronyism in budget decisions to lynchings) [all DAPs], support for municipal human rights offices [CARE], and building capacity for oversight and advocacy by local civil society...[all DAPs, especially CRS and CARE].

Intermediate Result 2: Greater Transparency and Accountability of Governments

All the DAPs involve local citizenry in managing resources and local development programs. Procedural training, promotion of transparency and accountability, and building capacity for social auditing are basic to these efforts. CARE and to a lesser extent CRS focus on improving the accountability between elected and appointed officials and their constituents, including the ability of local government entities to provide quality services and to follow the priorities settled on in participatory planning processes. An important aspect of improving performance of local government is increasing the amount and quality of information available to citizens -- particularly on finances -- so they can more knowledgeably participate and monitor government functions [for example, the COCODES in Casaca, Ixtahuacán, strengthened by CARE, successfully demanded to see municipal contracts for road construction in their community to assure proper use of resources]. These DAP activities build on and at the same time strengthen implementation of the ground-breaking reforms that were passed by the Guatemalan Congress in 2002.

Illustrative DAP contributions to SO1 goals:

- Support for implementation of the decentralization reforms, including participatory planning processes, accountability mechanisms, development of municipal planning offices and development councils, and local control of social services [e.g., support of participatory planning processes in community health, food aid, and agriculture/income committees by all DAPs; training of COCODES by CRS and CARE; and capacity building by CARE of key municipal instances like offices of planning (OPMs), COMUDEs, and the municipal council, as in Tucuru, Alta Verapaz];
- Policy dialogue and technical assistance at the local level to increase the resources available to municipal governments and to improve their use in providing quality services to citizens [CARE];
- Technical assistance to help municipalities implement transparency and accountability systems, including the use of town meetings to discuss priorities and report progress [CARE];
- Promotion of improved local government-private sector engagement through public-private partnerships for local development and service delivery [e.g., GDA partnerships developed by Save the Children to improve access to education and credit in DAP communities; municipal institutional coordinating bodies, CARE];
- Training for civil society social auditing efforts at local levels, including monitoring of budget implementation and selection processes for key positions [all DAPs at community level; CARE at municipal];
- Technical assistance for regional local government associations [e.g., CARE's support for *mancomunidades* of municipalities in Huehuetenango and Alta Verapaz].
- Support for improved accountability by elected officials and improved checks and balances at the local level [all DAPs train citizenry in how to foster transparency and accountability at local levels].

USAID estimates that "... sustainability [of SO 1] will largely depend on (a) the country's decision to allocate the resources needed by key institutions to achieve to improved rule of law and more transparent, accountable government; and (b) the political will to bring important innovations and reforms to the point where they become the expected way of doing business, i.e., an institutionalized part of organizations and processes." The Title II program can be seen as contributing on both fronts at the local level. It could have had considerably more impact if local governance objectives for the DAPs had not been discouraged in the past by USAID, and

thus if such activities were explicitly included in each DAP, as they are in those of CARE and to a lesser extent CRS.

SO 2: AN OPEN, DIVERSIFIED, EXPANDING ECONOMY

The Title II program supports several aspects of this SO and its IRs in the course of its work with small scale producers in food insecure rural areas—a category which covers half the country's families. The DAPs involve both men and women in activities that range from improved subsistence farming to working with high-value horticultural exports, specialty coffee, certified forest products, and artisan production. Introduction of improved technology and marketing know-how help make the transition to small scale production systems, some of which have proved internationally competitive.

Illustrative DAP contributions to SO2 goals:

- Assistance to resolve land conflicts and improve rural land tenure, with follow-up to assure successful agricultural outcomes (e.g., CRS in Las Trojas and elsewhere with its land tenure program; CARE in Los Pinos. Both have accompanied communities through land tenure processes);
- Technical assistance to small-scale producers to allow them to engage in higher value production that meets market requirements (all DAPs);
- Assistance to enable communities to manage cultural and natural resources, including biodiversity (all DAPs);
- Forging of more competitive business clusters and improved business linkages in rural areas (e.g., SHARE encouraging associations of handicraft groups; CARE organizing coffee producers to certify their product);
- Support to local business associations to promote better business practices and greater transparency (all DAPs with farmer associations, interest groups, cooperatives, etc.);
- Formation of alliances with export businesses that leverage resources and access to technology and markets for small farmers (e.g., Save the Children, CRS, and SHARE participants working with green bean and broccoli export firms);
- PL 480 Title II-funded activities to improve infrastructure in food insecure areas and to help families in these areas become more market-oriented and competitive (all DAPs);
- Technical assistance to increase access to financial services in rural areas for small and micro-businesses (e.g., micro credit service providers originated by Save the Children and CRS; development of community rotating funds by SHARE and CARE); and
- Increased effectiveness in the use of remittances and their use for business development services (all DAPs, in their lessons on planning for sustainable household food security).

More could be done by the Title II Program to support USAID's economic development SO; however, there are inherent limits. The Title II program deals largely with the poorest of the poor, living in very isolated areas, who need to focus more on basic food production/security and are not ready for international competition. Among steps that could be taken are 1) incorporating the agricultural and income generation components into more of the food security intervention sites, 2) coordinating with key institutions such as the National Competitiveness Council, or PRONACOM, the trade associations that promote clusters and specialty coffees, like the Non-traditional Export Association (AGEXPRONT) and the National Coffee Producers Association (ANACAFE), the commercial banking sector to broaden and leverage financing available to Guatemala's small-sized rural enterprises, and with other potential allies. These private sector partners can help the Title II Program with innovative trade development initiatives, creation of new employment opportunities, and preparing to take advantage of new trade opportunities under CAFTA, especially where more advanced producer groups are active.

SO 3: HEALTHIER, BETTER EDUCATED PEOPLE

Improved health, including nutrition, is the core area of action for the Title II project. While it does not work directly with education, some of the PVOs have used complementary funding to bring educational programs to bear in DAP communities—both literacy programs for adults [CRS, SHARE] and improved materials for elementary schools [Save the Children]. All DAPs foster adult education for participants in areas such as health, hygiene, nutrition, organization and administration, agriculture, and income generation.

Intermediate Result 1: Increased and improved social sector investments and transparency

The Title II program supports decentralization of health services at the local level and works closely with the MOH-contracted service providers. Its presence, training of community health committees and promoters, and interactions with the local health service providers help assure greater transparency and better resource use.

Illustrative DAP contributions to SO3 goals:

- Technical interactions that strengthen MOH technical management at the local level [Save the Children, CARE and CRS DAPs];
- Development of local performance monitoring systems for better informed decision making and increased accountability and transparency [all DAPs];
- Promotion of best practices that support decentralization of health services, including greater community involvement and accountability, shifting the function of the MOH toward a more regulatory and normative role [CRS, Save the Children, and CARE DAPs];
- Forging public-private partnerships and alliances to help finance increased and improved basic education and health care [e.g., Save the Children's GDA alliance to improve access to quality education in some DAP communities, SHARE's coordination with CONALFA (the national literacy commission) to better-educate community health workers (promoters)].

Intermediate Result 3: Improved integrated management of child and reproductive health

This is central to the DAP MCH/N interventions, which have recently been standardized around the MSPAS' AIEPI / AINM-C methodology.

Illustrative DAP contributions to SO3 goals:

- Technical assistance and training to expand and improve the quality of reproductive and child health services, especially AIEPI AINM-C [this methodology is now promoted by all four DAPs];
- Community and municipal support for expanded coverage of basic health services through MOH-contracted NGOs [all DAPs];
- Technical assistance to strengthen a large health NGO network [through interactions with NGO health service providers contracted by MOH and local partners of the DAP MCH/N interventions];
- Integration of targeted supplementary feeding (PL 480) and AIEPI AINM-C [all DAPs];
- Direct contributions to improvement in SO health indicators: the DAP MCH/N interventions are specifically aimed at lowering infant mortality, raising immunization rates in children less than two, and reducing chronic malnutrition in young children.

Support for other aspects of the Country Plan.

Emergency plans. The Title II program already has contributed to the Country Plan's "Crisis Modifier" approach, with the concerted support of the DAPS in response to Hurricane Stan in late 2005. Human and material resources were shifted massively from planned sites and activities to attend new food security priorities

created by the disaster. This flexible stance will continue; it can be improved in the MYAPs by a number of means (see Sections 7 and 8).

Crosscutting teams.

- **Food Security.** The Title II Program has been central to the efforts to improve food security in critical areas in Guatemala. The DAPs have adapted to changing geographic and technical priorities defined by the Mission. However, the integration of Development Assistance and PL 480 resources could be improved by closer contacts at the administrative and technical levels.
- **Accountability and Transparency in Public Spending.** The DAPs represent a valuable, on-the-ground resource for promoting good governance, improved accountability, and transparency in local institutions. Transparent, participatory processes for setting priorities, taking decisions, monitoring progress, and evaluating results are at the core of the action of the DAPS in each community, and also at the municipal level in the case of CARE. Again, more interaction between USAID's Development Assistance staff and the DAPs would strengthen the integration of these efforts.

Gender. The DAPs are gender focused; women are pro-actively engaged in health, agriculture, and other committees, as well as in leadership development programs, breaking down traditional gender roles. Men are also trained and involved in health, nutrition and other tasks traditionally associated with women. Given the geographic targeting of the Title II programs, these processes that change gender stereotypes are taking place mostly in impoverished ethnic Mayan communities. Specific programmatic examples include the involvement of over 5,000 women in community banking by Save the Children, and the 63% participation of women in interest group leadership roles achieved by SHARE.

Environment. Concern for environmental protection and compliance with Regulation 216 are built into the current DAP approaches to agriculture and income generation. USAID fostered cooperation on environmental training workshops in 2003 and 2004. This kind of interaction between the Mission environmental office and the Title II program should be maintained and strengthened. All the DAPS are now doing better jobs of anticipating and complying with Reg. 216 requirements; Save the Children has developed an institutional environmental management plan and has integrated the Reg. 216 procedures with its M&E system. There is good potential for further raising environmental awareness and providing environmental training in rural agricultural communities through the mechanisms of the Title II program.

Annex I. Characteristics of COCODES

Key Characteristics of Community Development Councils (COCODES)

1. COCODES is organized and legally registered.
2. COCODES commissions are formed and active, including most of the formerly existing committees.
3. Citizen participation is broad, enthusiastic, and united in assemblies and commissions; leadership of commissions does not overlap much.
4. Projects have been prioritized by consensus, organized, funded, and implemented.
5. Annual Operational Plans are being made and used.
6. DAP committees (usually health and food distribution) report regularly and fully to COCODES.
7. Long term plans have been made based on participatory diagnostics.
8. Active links to 2nd level COCODES, COMUDE, and/or directly to outside sources of funding (if COMUDE is weak).
9. Projects have been done in alliance with other communities, other COCODES.
10. Focus on integral development, not just infrastructure (i. e., COCODES assumes responsibility for overall welfare and development of community and its members: health, education, food security, economic development, etc.).
11. COCODES participates in social auditing at the community and municipal levels.
12. COCODES requires NGO and GO projects in the community to consult, inform, and coordinate fully (including the DAP).

Interviews

One to two hour interviews were done with one or more COCODES members in the community listed, often accompanied by other local leaders. The choice of interviewees was haphazard. An open-ended list of points to be covered was used as a guide. Usually representatives of the DAPs were present. Where needed, translators were used.

The points covered ranged over much more than the list of criteria used here to classify the COCODES. Processes that led to the differing degrees of organization, participation, and empowerment observed were of particular interest, as was the relation of the DAPs to the development of democratic processes.

This exercise was done for qualitative purposes, to help synthesize informal observations made over a five week period. Sampling of places and interviewees was uneven, as was the depth and intensity of the interviews. Points could easily have been missed; some interviewees were more knowledgeable than others. Differences between communities and PVOs, while suggestive, are imprecise and should not be taken to be definitive or significant measures of the status of the democracy interventions.

Characteristics of COCODES

COCODES Interviewed	Organized legalized	Working commissions	Broad participation	Projects Done	Ops plans	DAP reports	Long term plan	Links above	Alliances made	Integral developmt	Social audit'g	Required cooperat'n	Total
SHARE											Average:	3.8	
Payá, Comalapa	X	X						X					3
Paquixic, Comalapa	X	X		X			X						4
Raxjut, Rabinal	X		X	X			X	X					5
Taltimiche, Comintancillo	X	X		X				X					4
Las Flores, Comitancillo	X	X		X				X					4
Tuicoy, Todos Santos	X	X		X									3
SAVE											Average:	3.6	
Xebaquit, San Antonio	X	X	X	X	X				X		X		7
Paquí, Uspantán	X	X		X				X					4
Quizachal, Uspantán	X	X	X	X	X			X					6
Vicalamá, Nebaj	X	X		X			X	X					5
Acul, Nebaj	(CDL)												0
Cajixay, Cotzal	X	X											2
S. Felipe, Cotzal	X												1
CRS											Average:	4.5	
Tesoro Abajo, Camotán	(lost)												0
Tincanlú, San Juan Ermita	X	X		X				X	X				5
Shupá	X	X		X				X					4
San Vicente, Salamá	X	X	X	X				X					5
Las Trojas, Salamá	Not legalized	X	X	X									3
Monte Perla, Tajumulco	X	X	X	X	X		X	X	X				8
El Malacate, Tajumulco	X	X		X									3
Canibalillo, Tacaná	X	X	X	X			X	X	X		X		8
CARE											Average:	6.6	
Los Pinos, Tukurú	X	X	X	X	X			X					6
Cucanján, Tukurú	X	X		X	X			X					5
Chiyo, Carchá	X	X	X	X	X			X		X	X	X	9
Caquigual, Carchá	X	X		X			X	X					5
Sichivilá, Tutuapa	X	X	X	X				X					5
Taltuito, Tutuapa	X	X		X	X			X	X				6
Agua Cal'nte, Tectitán	X	X	X	X	X			X	X				7
Corinto, Cuilco	X	X	X	X				X					5
Casaca, Ixtahuacán	X	X	X	X	X	X	X	X		X	X	X	11
TOTALS: 30	27	26	13	25	9	1	6	21	6	2	4	2	

Annex J Cameos

The following 33 narratives describe and illustrate some of the project activities.

Box J.1: Fatter pigs go to market

In 2005 the interest group in Paquixic, Comalapa, Chimaltenango, bought four piglets and built a sty with a loan from ASOGUADE (in collaboration with SHARE). In less than a year the thirteen women and men repaid 30% of their Q. 1000 loan (\$133). ASOGUADE let them keep the rest as working capital. Marco Antonio Vásquez, ASOGUADE extensionist, gave them hands-on training. The people took the training to heart and go to Comalapa and get the veterinarian when they need vaccinations or medicines. The group sold their first pigs at Christmas time. A local butcher helped prepare the meat, which the neighbors bought by the pound for tamales. The fat went into *chicharrón*. In January they sold the other two pigs to a restaurant owner in Tecpán, who came and picked the animals up.

People in Paquixic have 'always' kept pigs, which scrounged for weeds and scraps and ate feces off the ground. Free-ranging pigs cost less to feed, but take a year or two to reach market weight. As the group told us, if pigs are penned and given concentrated feed, they can reach 200 pounds in just four months. The group has already bought four new pigs, which will be in the market by Spring.



Left. A freshly scrubbed pig takes a drink from the brass fountain in the stall wall



Right. The interest group in Paquixic has started raising their second batch of piglets

Box J.2: The weavers of Aj Kem

Dilia Rogel Velázquez, the young *promotora* in Pa Ya', Comalapa, Chimaltenango, was proud to tell us she spends one day almost every week with the women of Aj Kem, which (she explained) means 'weavers' in Kakchikel. They have a simple wooden shed, with three wooden looms. Aj Kem started with help from AGIL, a previous USAID project. Now that the women work with ASOGUADE and SHARE, they have had some training in the shuttle looms (before they only used back-strap looms—*telares de cintura*). They learned to make bedspreads, cushions, place mats and other household items, woven with earth-tones and subtle patterns. Their work is attractive, and they enjoy it. But would like more orders. They made Q. 1000 in September, which they were pleased with, but since then they have not had an order.



Top. Doña Felipa Velásquez at the loom

Bottom. Dilia the *promotora* (left) and the other young weavers of Aj Kem



Box J.3: Egg money

About 1989 when the violence was ending, a group of war widows went back to their village in Patzaj, Comalapa, Chimaltenango. A charity organization gave them hens, seeds, and tools. Some of the women began working together. Over 15 years later they still work as a cooperative. Because they are an established group, ASOGUADE (with SHARE) gave them a 'commercial' loan, which meant they had to pay it all back, but at no interest. Their loan, which they recently paid off, helped them to build two barns in 2005 for 1000 hens. Doña Felipa explained that they keep such tight control over the money and the books that for a long time they hid their accounts even from ASOGUADE. Every day the women carefully package 800 eggs and divide them up, assigning each member a package to sell, either in Patzaj or in Comalapa. The women take turns caring for the hens one day a week, and the eggs give them an income about equal to what they could make doing wage labor. The egg business gives the women safe, year-round employment, close to home, while providing fresh, nutritious food for the local market.



Left. 1000 hens in two coops provide a modest living for 16 poor but enterprising women



Right. A cooperative can stand the test of time. The group Nueva Esperanza ('New Hope') has worked together for 15 years, and recently paid back a loan for two more chicken coops

Box J.4: The trouble with brooms

The families of Tesoro, Jocotán, Chiquimula own about two *cuerdas** each of land (560 square meters—3/20 of an acre). Most of the land around the community is owned by an hacienda. There is almost no water for irrigation. Most households rent land to grow maize and beans, and some people make money by picking coffee in Honduras. People used to make a living selling palm thatch, but when thatch prices fell in the 1990s, due to competition from cheap plastic, people started making more brooms from palm (on their own initiative, not as part of the project). The people do not know why, but by 2006 the price of brooms also started to fall, from Q. 25 a dozen to Q. 15 (from \$3.33 to \$2). A dozen brooms takes three days to braid, so people are starting to lose interest in making them.

The project has helped the people of Tesoro to grow radishes and other vegetables, and to make compost heaps as a food for work project. The people are grateful for the help, but it has not been enough to help them overcome their lack of land, of water, and the recent crisis over thatch and brooms. Some other solution is needed: education, jobs or land, or all three.

Right. Olivia Jerónimo and Marina de Jesús Pérez (with children) in Tesoro ('Treasure'). The house behind them, like most in the village has a thatch roof and walls woven from palm fronds.

Below. A palm-leaf broom, cleverly made, but prices have fallen for both thatch and brooms. The people of Tesoro have made compost pits and planted small gardens, but with little land or irrigation water they still need other options to make a living.



*The *cuerda* varies from place to place. In this part of Guatemala it is 280 square meters: 20 *varas* by 20 *varas* (a *vara* is about 33 inches), or 25 *cuerdas* to the *manzana* (7000 square meters).

Box J.5: Red tilapia

In Shupá, Camotán, Chiquimula, Caritas and CRS helped nine families start a fish tank with red tilapia, sterilized with hormones so they cannot reproduce if they accidentally get into the streams. (The consultants are not sure if this is a failsafe way of keeping tilapia from escaping and preying on local aquatic species. Tilapia is an aggressive predator). The tank cost Q. 6000 (\$800), including 3000 fry, 400 pounds of fish feed, and plastic pipe to bring in water 700 meters from the overflow of a recently completed FAO micro-irrigation project. The 10 by 30 meter tank was built with heavy machinery, courtesy of the Municipality of Camotán. On 16 February 2006 the interest group will do a small market study, but they think that the local market will pay Q. 12-15 (\$1.60-2.00) per pound of fish. They expect to gross Q. 26,400 (\$3520) by selling the fish during Holy Week. They will use the money to create a capital fund to buy more fry and start over. They save money on feed by raising algae in the tank; the algae are encouraged by the warm weather and by cow manure. They also plan to start raising vegetables with the water discharged from the tank. The group is very grateful to USAID, CRS and Caritas for helping them start this small business.



Top. Otilio Vásquez, Aguilar Angel Gutiérrez, and Florencio Gutiérrez are delighted with their new fish pond

Bottom. Red tilapia, neutered with hormones

Box J.6: How to manage compost

In many communities in Chiquimula, extensionists give food for work rations to families that make compost heaps, to make organic fertilizer. Compost is excellent fertilizer, if a gardener can get 10 or 20 tons of it per hectare. It takes much work to haul organic matter onto a field and spread it around, especially if one uses enough of the organic fertilizer. Research and training with organic fertilizer needs to be spent not on making it better or faster, but on saving labor and transportation costs. A compost pile should be made near the house (easy to reach), where food scraps and other organic household trash can be tossed onto it. When the pile is full it can be left to rot, and then spread on the garden.

The compost piles in Chiquimula are probably not profitable. They include too much dirt, which adds no new nutrients to the soil, but does take time to shovel into the compost. The compost is made with low value crop residues, like dried maize stalks. There is no net fertility gain from hauling a maize stalk out of a field, compost it by using much hand labor, just to haul it back into the field.

On the other hand, in Alta Verapaz, CARE teaches farmers to rake up crop residues into rows, following the contour. This is less work than hauling the vegetation to the field edge, the little barriers help conserve soil, and eventually they rot and fertilize the soil.



Left. A compost heap with dirt and low value crop residue. The fence around it is just extra work to make.

Right. Crop residues are better left in the field, like these bean-straw barriers in Alta Verapaz.



Box J.7: Vegetable gardening

Twenty eight women in San Vicente, Salamá, Baja Verapaz, grow a small garden (about 600 square meters) with Caritas and CRS. They receive a food ration for working in the garden, about a third of which is vegetables (coriander, chard, onions, radishes, celery, carrots). These species have few pest problems, which helps to limit pesticide use. The women fertilize the soil with chicken manure they bring from their homes. Some edible wild plants sprout from the manure, including *hierba mora* (black nightshade, *Solanum nigrum*) and *miltomate* (*Physalis* spp.), which the women leave in the garden. About two thirds of the garden is planted in string beans (*ejotes*), which the women will sell through an exporter. The land and the irrigation water are loaned from a neighbor. The women take turns working every three days on the garden, irrigating and weeding. They have a meeting once a week where the volunteer promoter, Santiago Rodriguez, donates his time teaching them about gardening. This is sacrifice for him, since he does not have enough land to grow all the food his own family needs; he must work for wages some days in order to buy food, but he thinks it is important to help his community. We visited one group member at home; Doña Teodora said that when the vegetables were ripe, they harvested them as a group and divided them up. We asked her which vegetables her children liked best. "They eat them all," she said.



Left. Twenty eight women in San Vicente grow irrigated vegetables in this tidy garden.

Right. Doña Teodora says her kids like all the vegetables



Box J.8: Land of their own

In Las Trojas, Salamá, Baja Verapaz, 44 families are moving onto land bought from a large estate with money from the Guatemalan government's Land Fund (*Fondo Tierra*). One of the first things they did was build a school for their children, with a roof and one wall of sheet metal. "School and water are the base of this community. This is just a shed, but one day we will have a real school," they explained.

The work has been backbreaking, leveling house lots on the steep, rocky hillsides, and hauling their timbers and roof tiles from their old village three kilometers away. A few have mules; some can afford to hire trucks, but many families must carry or drag their belongings. Even the children help.

It hardly seems like they have time to plant a forest, but Caritas and CRS have helped the people of Las Trojas to plant seven and a half hectares of pine. The people worked one or two days a week for six months to fill bags with earth, tend the nursery, plant the seeds, and then in July 2005, to transplant the seedlings. A Guatemalan government program will pay the community Q. 12,000 (\$1600) a hectare if the trees are still alive in five years. The money will be welcome, but people also said that "if there is no forest, the water will dry up."

Besides planting maize, beans and cabbage to eat, 36 members of the group have also planted string beans to sell to an exporter (San Juan Agro -Export), arranged with help from Caritas. The exporter pays them Q. 2.50 (\$0.33) a pound for the green beans. The land was prepared as a group, using contour plowing to help conserve the soil. But each person farms his own patch of *10 brazadas por 10 brazadas* (331 square meters). The exporter loaned the farmers the seeds and other inputs, including agricultural oil to control insect pests (mainly whitefly). They harvested three times a week for a month, starting on 3 January 2006, and were pleased with the results. They sold about 100 quintals (4500 kilos), worth Q. 25,000 (\$3,333), an average gross of \$93 a family.

The group has also built a water tank and has some hose with drip irrigation for growing a *cuerda* (280 square meters) of jalapeño chilies to sell locally. They are also experimenting with two *cuerdas* of two varieties of sweet potato and one of manioc, provided by ICTA.

Many of these new ideas were brought to the community by Caritas extension agent Erwin García, and encouraged by food for work. Food for work should not be used to induce people just to work on their own land, but in this case, FFW was appropriately used to help people adjust to their new home.



Left. The family men of Las Trojas

Right String beans help the community earn much needed cash

Box J.9: Cotton Flower

The weavers of Chauperol, Rabinal, Baja Verapaz organized in 2000, calling themselves 'Flor de Algodón' (Cotton Flower). They are linked to 'Mayan Hands', which exports fabrics to the USA. The leader of the group, María Ana Lajú, learned to weave in 1987, and since then has helped others to learn. They also received training through Flor de Naranjo ('Orange Flower'), a local NGO partner of SHARE. Flor de Naranjo has no problem with demand. They receive many orders from the United States; their problem is making enough cloth to fill the orders. The women agree on a pattern, receive the thread on credit, and take it home to weave. They like to work this way; they can be at home and get up from the loom to take care of their other duties. The one man in the group impatiently suggested that he would like to have a shop floor filled with men working in eight hour shifts. That way they could weave much more cloth. But weaving just to make cloth is rather beside the point; as one of the women said, before she started weaving in 2002 she never knew what she was going to feed her children.



Left. Ana María Lajú holds the rod where she keeps thread left over from weaving. The women embroider *güipiles* (blouses) with the remnant thread

Right. A cloth being woven on a sturdy, shop-worn treadle loom

Box J.10: Loroco

In 2001, ten people in Pachicá, Rabinal, Baja Verapaz were looking for an alternative to maize. They approached Flor de Naranjo (a partner NGO of SHARE) to raise loroco (*Fernaldia pandurata*), a plant with an edible flower. Loroco is used in many Guatemalan dishes, so it is easy to sell in the market in the town of Rabinal. But after some experience the group realized that prices rise steeply in the dry season. So they decided to irrigate. Flor de Naranjo and SHARE promised to help them with cement and other non-local materials for irrigation tanks, if the people would dig wells. Tereso Román Tecú dug through 16 meters of hard sub-soil in eight days, with just a hired hand (*mozo*) to help lift out the dirt. Hard work gives the group something to be proud of. We asked them what would happen if the project ended tomorrow; would they keep working? And they laughed and said they would just keep going.

It is easy to see why. Even with the low prices offered in the rainy season (Q. 1.50 to Q. 2.00 per lb.—\$0.20 to \$0.26) a mere *cuerva* of the flower fetched each grower anywhere from Q. 800 to Q. 2000 (\$107 to \$266). They expect to earn even more with irrigated, off-season loroco.

The project paid for materials worth Q. 2500 (\$333) per person, but each tank and well is worth ten times that much, thanks to the labor and materials provided by local people, including sand hauled from the river bed in wheelbarrows. As SHARE agronomist Mardoqueo Gil explained, the group pays back 25% of the loan for non-local materials, and keeps the rest as working capital. SHARE could afford to finance the full cost, but paying part of the cost, and building their own tanks and wells, gives people pride in ownership and ensures that they will keep using the equipment after the project is gone.



Top left. Loroco seed is windborne, like dandelion. The fruit is inedible

Bottom left. But the flower is a favorite in Guatemalan cooking

Bottom right. Tereso Román Tecú and the well he dug by hand. The plastic bucket, pipe and rope are his pump. The knotted rope, fitted with rubber washers, makes a loop from the bottom of the well, up through the tube, into the bucket and out through the top, through his hands, and back down the well. As don Tereso pulls on the rope, the washers trap water, haul it up the pipe into the bucket, where the water spills into the second pipe, which runs out into the field



Box J.11: Native chicks

In 2002, Flor de Naranjo and SHARE invited the Indigenous Mothers (*Madres Indígenas*) in Chitcoy, Rabinal, Baja Verapaz to form a poultry-raising group. Agronomist Juan Carlos Cortés taught them to vaccinate hens and raise chicks. They decided to specialize in the native breed, rather than in the pale yellow chicks sold in stores. The native hens were well-adapted to the area, and they ranged free most of the day, foraging for food, but that meant that the dogs found and ate most of their eggs. By rearing the eggs in a chicken coop the women save many more of the eggs. The mothers have learned to manage credit, and now have a portfolio to loan to members. They sell 50 chicks once a week for Q. 4.00 (\$0.53). There is local demand for the chicks, which all sell on the day they appear on the market. The women also vaccinate hens for Q. 0.25 (\$0.03). The group charges fines to its members who are late for meetings. This has not agreed with everyone, and of the original 30 women, 21 are still in the group. The women recently repaid a loan for an incubator. They pay dividends of Q. 100 (\$13.33) every three months to each member, and three years after starting they distributed the money from fines and vaccinations among the members, giving each of them Q. 1,000 (\$133.33).

Each woman has a coop at home with roosters and hens. At first, the group requested a quota of fertilized eggs from each member. This was cumbersome, and the group got along much better since late 2003, when they decided to just buy the fertilized eggs from the members. Each one simply brings as many eggs as she wants to sell.



Left. Indigenous Mothers show off the day-old chicks

Right. The group meets to take decisions and see the books.
Note the rules taped to the wall above the women's heads

Box J.12: Coffee dryers

Drying coffee was always difficult in Los Pinos, Tukurú, Alta Verapaz. Coffee trees flower when it rains, and the long rainy season in Los Pinos means that the coffee is harvested nine months a year (from September through May), even in the rainy season. In 2005 CARE contacted a fair-trade buyer, Forestrade, which gave the villagers loans for wire mesh and plastic sheeting to make simple coffee dryers. Local people provided the wood and labor. Community member, Domingo Xultún, said that the coffee now dries in seven days in the rain, and three days in sunny weather. The best thing is that coffee does not have to be collected from the patio if it rains, which saves a lot of work. They used to dry their coffee on corrugated sheet metal, but the beans often got wet, and spoiled. Of the 106 families in Los Pinos, 76 are arranging to sell organic coffee through Forestrade.

The community recently purchased six *caballerías* of land (271 hectares) from the estate where they once worked. CARE helped them work out a friendly deal with the owner, who gave them the land in lieu of the *beneficios pasivos* (a kind of back pay) that the owner owed them. CARE also helped the community buy a coffee pulper. One of the chronic environmental problems with coffee is waste pulp ending up in rivers and streams, which is worse when people use a lot of water to pulp the coffee. In Colombia the ratio was once as high as 40 liters of water per kilo of coffee (Cadena 2005). The people of Los Pinos have done two things to resolve this potential problem. They trickle water from a gallon jug into the pulper, and they use just four liters per sack of cherry coffee, which is very little water. This way the pulp is dryer, so instead of sluicing it into the river, it can be stacked behind the pulping shed, where community members come get it to use as organic fertilizer.

The village is one of seven organized into an association called APROCOCODE (Asociación de Productores Comunitarios de Desarrollo), which helps them to process and sell their coffee and cardamom.

CARE sells community members fruit tree seedlings (lemon, avocado, *pimienta gorda*, orange, and others) for Q. 10 (\$1.33) each. Most families buy the trees on credit, which they repay not to CARE, but to the local agricultural committee, which keeps the money as a rotating fund, building up capital to invest in the community, while learning to manage the books.



Left. The largest coffee dryer, shared by four families



Right. Domingo Xultún with racks of drying parchment coffee. He likes his dryer because the coffee does not spoil, and dries faster, even in the rain

Box J.13: Fish and Chickens

Domingo Morán and two neighbors in Pacajché, Tukurú, Alta Verapaz, have been raising chickens, tilapia and snails together for seven months. They dug the tank themselves with picks and shovels and built a chicken coop over the pond. They now have about 4000 grey tilapia. They feed the 80 roasting hens with commercial feed. The bird droppings fall into the water, where they feed the algae, which the tilapia eat. The fish eat for free. The group also raises snails in the water, which the locals have started to eat in *ceviche* (Peruvian-style raw fish-in-lime-juice). CARE loaned the group plastic tubing and cement, and 1000 fry. Three months later the group paid back the fry in kind, and CARE gave them to another group. Don Domingo keeps a record of everything that goes in and out of the pond or the henhouse. This helps him and his partners avoid misunderstanding, and to learn bookkeeping. After raising five batches of chickens the group will repay the loan for the birds, and CARE will use the money as a revolving fund to start another group.



Left. Chicken coop over the water. The fish eat the algae that grow on the chicken droppings



Right Snail eggs.

Box J.14: Weaving and gardening

In Chiyó, Carchá, Alta Verapaz, Juana Cucul showed us a vegetable garden run by their group of 28 women. They are trying several new crops for the first time, including potatoes, cabbage, peanuts and *güicoy* (summer squash). The cabbages were remarkably pest free, and Doña Juana showed us a bottle of sulfo-calcio (homemade pesticide, currently popular with NGOs in Central America, made by boiling sulfur and lime) which she says keeps the worms under control. They are also doing a fertilizer experiment. On one *cuerda* of beans they applied 20 pounds of chemical fertilizer (15-15-15) and on another *cuerda* they applied a bag of chicken manure. They will see which type of fertilizer works best. The garden allows women to experiment with new crops, and to take the harvest home to their families.

Another group member, Elvira Tiul Choc showed us her back-strap loom, which she uses at home. It is slower than a treadle loom, but takes up less space and is less expensive. She appreciates the training she received through CARE, and has made ponchos and other items, some of which she has already sold. She said 16 women weave.



Left. Sulfo-calcio in the group garden



Right. Elvira Tiul Choc weaves on a back-strap loom

Box J.15: Coffee cooperative

In 1995, 25 people formed a self-help group in Chiyó, Carchá, Alta Verapaz. They started by charging each person Q. 13 in dues, and depositing it the bank. None of them had ever opened a bank account before. They started to save together, and then to loan the money back to each other. They bought chemical fertilizer as a group, and trucked it to Chiyó, where they used it to improve their maize yields, so they would have more tortillas for their families. They fined people who repaid their loan late. People repaid their loans when they harvested their maize, just as the coffee harvest was starting. So the cooperative began loaning the money back to its members to finance the coffee harvest. They were selling their coffee in cherry to intermediaries ('*coyotes*'). Cooperative president Alejandro Cu Cucul recalls that an institution in Carchá, Talita Kum, agreed to help the group build a coffee processing plant (*beneficio*). Theoretically this would allow them to wash and dry coffee and sell it as more valuable parchment coffee.

Unfortunately, there was not enough water, so the *beneficio* was only used once, when it was inaugurated. The people also needed more training to run the plant. By about 2002 CARE agronomists began teaching coop members to use the equipment, and to sell parchment coffee. CARE introduced them to an exporter, allowing them to sell for a better price. In 2005 the group tried roasting their own coffee and selling it in one pound bags. ANACAFÉ (the Guatemalan national coffee producers' organization) helped them roast the coffee. CARE helped them make one-kilo packages, and set up a stand to sell it at the largest shopping center in Cobán, the capital of Alta Verapaz. Selling roasted coffee on the national market has not been as easy as the growers hoped, even though it was reasonably priced at Q. 15 (\$2) a pound. Even so, they are not discouraged, and continue to produce coffee, and they are also starting to grow vegetables and gladiolas.



Left. Alejandro Cu Cucul, president of the cooperative. He holds a one pound bag of roasted coffee for the local market

Right. CARE helped teach the cooperative members how to use their coffee *beneficio*, so they could wash and dry their coffee, and sell it for a higher price

Box J.16: Native American bees

The Choc brothers, Arnoldo and Alfredo, have an unusual collection of bees in Cacigal, Carchá, Alta Verapaz. They each have about a dozen hives of the ordinary, European honey bee, and several hives of stingless, Native American bees. One of the species is a large bee called *saq k'aw* (*Melipona* sp.) which is the size of European honey bees, but it has no stinger, and it nests in hollow logs, which people occasionally hang from the eaves of their porches. The bees don't seem to mind having their nest turned sidewise. The brothers also have several kinds of small black bees, including *k'ab* and *kuxuxi* (probably *Trigona* spp.), a yellow one, *limoncillo* (possibly *Trigona* sp. or *Scaptotrigona* sp.) and a brown one, *q'an us* (probably *Nannotrigona* sp.) Although they do not have stingers, the bees can bite, which can be quite annoying. But the *q'an us* is such a gentle bee that when threatened it simply backs down its wax tunnel into its hive. The Choc brothers and their neighbors have taken their name from the gentle *q'an us*, calling themselves the Comité de Apicultores del Norte Q'an Us.

Native American bees store their honey in blisters, not in combs. They dwell in cavities in logs and under rocks. Thanks to training from CARE, the bee keepers have been able to get the bees to live in wooden boxes, and once a year in January they open the hives and extract the honey with a syringe, so as not to harm the colony. They feed the bees with sugar water or honey to tide them over the dry season. Each hive yields about one bottle (750 ml) of honey a year. That is not very much, but many people in Central America regard the honey of native bees as medicinal, especially as eye drops. The cooperative sells vials of 30 ml of native honey for Q. 30 (\$4). So each of the small hives could gross the owners \$100. The native bee hives require little maintenance, and six of them plus a dozen of European honey bees (whose honey sells for Q. 30 per 750 ml bottle) could net a significant income for a rural Guatemalan family. The honey sells readily in local markets and fairs.



Left. Arnoldo Choc with his hives of European honey bees.

Right. Extracting honey from the hive of the gentle *q'an us* bee. The beekeepers induced the colony to nest in this wooden box. A bottle of honey is worth \$100.

Box J.17: Eggs, milk and gardens

Elizabeth Lobos in Xebaquit, San Antonio Ilotenango, Quiché, had four children and two hens, but she rarely saw the eggs. In 2005 Save the Children gave her a few meters of chicken wire and helped her build a chicken coop next to her house. The hens started to lay eggs in the coop—instead of hiding them in the vegetation around the farmstead—and now she has five hens. She has to feed them a bit more than when they were foraging on their own. Doña Elizabeth gives them two pounds of boiled maize, but she still lets them out once a day for a little walk.

“Now I get three eggs a day,” she says. “We eat them fried, or boiled, or in soup. When we get tired of eggs I sell a few and buy noodles or meat.”

The village is too dry for a vegetable garden. Xebaquit has piped drinking water, but the villagers have agreed not to use it to water plants, so there will be enough for household use. Save the Children is teaching them to make very small gardens, about two by four meters, near the house, and water the radishes, cauliflower and herbs with water left over from washing the dishes and clothes.

Elizabeth’s neighbor, María Vicente Xic also has a new chicken coop, and a goat, too. Save the children loaned her the nanny goat, which had a kid. Doña María will keep the kid and return the nanny, which will then be loaned to another family. Doña María feeds the goats on corn husks and a little meal. “They’ll eat anything,” she says.

In 2005, Doña María’s three year old son Juan Carlos was underweight. But with a cup and a half of milk a day she can make *arroz con leche* and other foods rich in protein. Since November, Juan Carlos has started putting on weight.



Left. Elizabeth Lobos and her children

Right. Three eggs a day makes a difference for a poor family with little children

Box J.18: Sincerest flattery

In Palquí, Uspantán, Quiché, Save the Children introduced new ideas that increased yields, for example: new black bean varieties, chicken manure as organic fertilizer and metal grain bins for keeping weevils out of stored maize. Thanks to another project, the village also has a small irrigation system. The twenty-eight-year-old promoter, Fidel Reyes, said that when he was a child, beans yielded 50 lbs a *cuerda* (about 500 kg per ha). Now they yield as much as 2 qq (about 2 t/ha). Maize yields have gone from 50-75 lbs per *cuerda* to 2-3 qq (from 500-750 kg/ha to 2-3t/ha). There finally seems to be enough to eat.

The innovations are simple enough, but many poor families cannot afford them. Save the Children gives people the grain bins and only asks for 25% of the cost to be repaid. Save the Children gives the people the chicken wire, so they can build coops themselves. As in many project communities, Save the Children set up rotating funds. Farmers borrow money from it for manure and other supplies, which they record, and repay. This way the community learns to manage credit.

Some of the new ideas are spreading through the community even without subsidies. Hilaria Reyes is an elderly woman without small children, so she did not participate in the project (Save the Children only works with families with pregnant mothers or with children under three). But when Doña Hilaria saw the results of the chicken coops, she bought wire and built one herself, and now she has enough chickens that she has some to sell. She feeds the hens boiled corn cobs and sorghum.

In the early 2000s, Fernando Reyes made rock walls as part of a food for work program with Save the Children. That program ended, but now don Fernando is clearing a new bean field from a rocky hillside. It is backbreaking work, but his sons and he use the rocks to build walls across the steep field. This helps him take advantage of the irrigation water, without losing all his soil to erosion. When local people adopt new ideas like chicken coops and rock walls, it is the surest proof that the technologies are appropriate.



Left. Fernando Reyes and his sons build a soil conservation wall with rock in a new field.



Right Chickens in a fenced coop. When other community members copy project technology, it suggests that the innovations are appropriate.

Box J.19: Understanding why

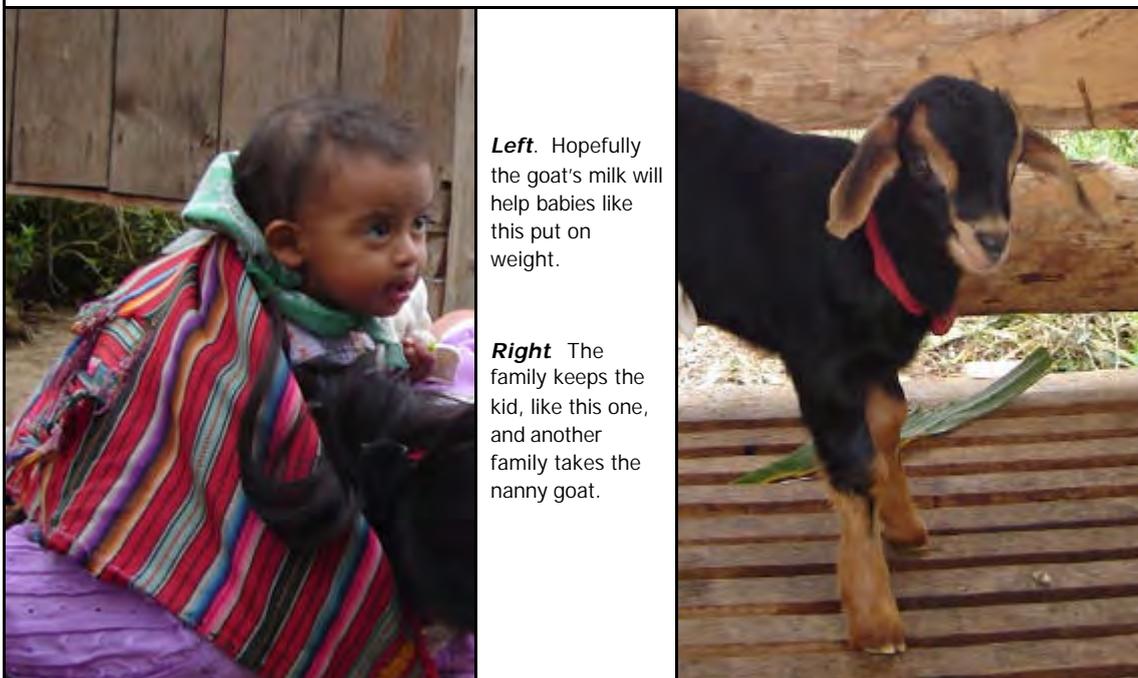
In Quizachal, Uspantán, Quiché, Save the Children loaned goats to 17 families with underweight children. The agricultural extension agents work with the health and nutrition people to identify families with malnourished babies. They loan them a milk goat; the family keeps the kid and returns the nanny. Save the Children covers some of the costs for non-local materials for the goat pen and the family feeds the goat.

We went to see one of these families. The nanny had had two kids and was giving “a large cup and a half” of milk a day. But Alejandro Calí, agricultural coordinator for Save the Children, noticed that the baby still looked malnourished. Alejandro chatted with the young mother of six. “Does he drink milk?” he asked, pointing to her three year old son.

“Yes, he drinks it all. He doesn’t want anyone else to have any,” the mother said.

Calí explained in a sympathetic tone, “You have to give some milk to the baby, too.” Pointing to the little boy, he added “He’s already a big *patojo*, but the baby needs more milk.” The project had also helped this family build a chicken coop, a rabbit hutch and grow black beans. It was unsettling to see that they still had a malnourished baby.

The project collects a lot of quantitative data, which is important. The staff knows how many people have rabbits or wooden maize dryers, and they are even collecting data on weight gain of children in families who have a goat at home. But as this case shows, the project staff are sensitive and understand why things happen (agronomist Calí immediately realized that the three-year-old was drinking the milk, instead of the baby). This type of qualitative understanding is often discussed, but is not usually written up.



Left. Hopefully the goat’s milk will help babies like this put on weight.

Right The family keeps the kid, like this one, and another family takes the nanny goat.

Box J.20: Maize without rats

Tortillas are the daily bread of Central America, especially of the rural poor. Families try to grow at least enough maize for all their tortillas, even if they rarely sell grain. The year's corn supply is usually stored in a wooden crib, a big target for rats and mice. So in Quiché, Save the Children helps families build drying sheds and improved corn cribs, both of which keep out rats by putting the structures on posts, to keep them off the ground, and ringing the posts with skirts of sheet metal.

The idea is to have a maize dryer, so the maize can be harvested when it reaches maturity, instead of leaving it in the field to dry, and then move the maize from the dryer to the corn crib. But the new corn cribs are so much dryer than the older ones that some families put the maize straight in the crib, without using a dryer. Some families are harvesting a little earlier, in December, but others still harvest in January and February. This is a good sign: local people are adjusting the technology on their own, e.g. trying different harvest months. Bending the corn stalks and leaving the maize to dry in the field probably helps prevent fungal attacks. It was one of Cornell plant pathologist David Thurston's classic examples of appropriate, traditional smallholder technology (Thurston 1992).

In Acul, Nebaj, Pedro Santiago told us that he had used his corn crib for two years now. He says that with the old granaries, mice and rats would get into the maize. "When we got to the bottom of the corn crib, it would be full of rat and mouse droppings. The first year I used my new corn crib, when we got to the bottom, the maize was clean."



Left. Old corn crib, built on the ground

Right New corn crib, with rat guards

Box J.21: Good gardens

In the perennial chill of Vilcamá, Nebaj, Quiché, a large village in the Ixil highlands, Jacinto Ribera earned Q. 800 (\$107) off his vegetable garden in one year: cabbage, *hierba mora* (black nightshade), *napux* (*Brassica* sp.), squash, potatoes, radishes and others. One day alone he dug up two beds of carrots and took them to the local weekly market and sold them for Q. 300.

The village of Acul, also in Nebaj, is lower and warmer, but Pedro Santiago and neighbor Rigoberto García have both earned money since May, 2005 by selling carrots, cabbage broccoli, Chinese cabbage, *bledo* (*Amaranthus hybridus*), *hierba blanca* and radishes. Water is abundant in Acul, so they irrigate with piped water. Save the Children helped them buy plastic water tanks and hose for drip irrigation. Before he had drip irrigation, don Rigoberto and his father used a sprinkler, but it splashed too much and eroded the soil (“*la mariposa chinga la tierra*”). The drip irrigation gently soaks the earth without washing it away (or without splashing earth onto the vegetables, a common source of plant disease). Before gardening, they had nothing to sell. Now both families sell produce in the village or in the nearby town of Nebaj. Don Pedro recently made the following simple accounting of his work, to show to other community members.

Income:	Guatemalan Quetzals	US dollars ^A
Carrot	Q. 110	\$14.67
Cabbage	Q. 372	\$49.60
Broccoli	Q. 470	\$62.67
Chinese cabbage	Q. 42	\$5.60
Bledo	Q. 32	\$4.27
Hierba blanca	Q. 112	\$14.93
Radish	Q. 20	\$2.67
Total	Q. 1158	\$154.40
Production costs		
Cost of irrigation (i.e. the 25% of the cost of the plastic tank)	Q. 250	\$33.33
Labor	Q. 80	\$10.67
Seed	Q. 60	\$8.00
Total costs	Q. 390	\$52.00
Net income	Q. 768	\$102.40

He included the cost of his own labor, although he probably spent more than four days on it. Assuming he spent Q. 310 (\$41.33) on the garden in cash, grossed Q. 1158 (\$154.40), he was left with Q. 798 (\$106.4), which is 40 days wages in rural Guatemala. In other words, on half a *cuerda* of land, about 200 square meters (a twentieth of an acre), a person is self-employed for seven weeks, besides putting vegetables on the kitchen table. By using organic fertilizer and household labor, the cash expenses for the garden are low, Q. 60 (\$8), just 5% of the gross income. This should help make the garden affordable to plant in future years. Don Pedro says that at first the other families were skeptical, but now five of them are ready to try gardening themselves.

In Cajixay, Pedro Sánchez mentioned a similar figure. He made Q. 700 from his half *cuerda* garden (between March 2005 and January 2006), besides the vegetables his family ate (and much of the garden was planted in local favorites like kale, known locally as *aulix*, and squash—*güicoy* and *güisquil*). One family who earned just Q. 400 (\$53.33) from their garden was able to forgo their excruciating annual migration to pick coffee in the lowlands. This saved them a dangerous trip, mosquito bites (which transmit malaria and dengue), and awaking at 4 AM to pick coffee. Besides, staying at home allowed them to keep their children in school all year (see Annex F).



Left. Drip irrigation conserves soil. Earnings from the gardens let some families skip the dreadful annual trip to pick coffee

Box J.22: Victorious women

The women of Acul, Nebaj, Quiché are organized into two credit groups, Mujeres Victoriosas de Acul, and Mujeres de Acul. Every six months each group takes out a commercial loan at 2.5% interest per month. They meet monthly to make and record their payments. The loans are as low as Q. 2000, for simple supplies—thread to weave, piglets to fatten, chickens to raise. This way they have products to market and sell. One group has met for three years, the other for a year and a half. *None of the women have ever defaulted on a loan.* This was confirmed by Pedro Marcos and Pedro Onofre, Credit officers for Génesis Empresarial, the business that loans them the money.



Left. The Victorious Women never miss a payment

Box J.23: The open door

In Taltimiche, Comitancillo, San Marcos, ten families share a medium-sized (30 by 7 meter) greenhouse, built about 2004 by a previous USAID project (Agil), through SHARE and local partner ADIPO. The greenhouse was made of tough plastic sheeting and screens, to let in air and keep out whiteflies, aphids and other insect pests. Unfortunately, the doors had been taken off the hinges in this greenhouse, so the families were controlling whiteflies with a weekly cocktail of insecticides and fungicides. (One advantage of interviewing people without the staff of the CS or its partner being present, found to be true in all the DAPs, was the freedom to speak freely. The staff may insist for example, as here, that the farmers are using only 'organic' pest control, and the campesinos rarely have the heart to contradict them).

ADIPO buys the tomato seedlings for the people, and delivers them. Giving things to people often encourages dependency, and in this case, the beneficiaries asked us several times for nine more greenhouses, one for each family. But when we asked them what the greenhouses cost, they did not know. They seemed to lack a little entrepreneurial spirit. As it turns out, the greenhouses are expensive. ADIPO estimates that the cement, plastic and nails cost Q. 12,000 (\$1600).

A greenhouse alone, without training in marketing and accounting, may leave the door open to feelings of dependency. Fortunately, we also saw an ADIPO greenhouse in nearby Las Flores, run by a group of over 20 families, which was better managed.



Left. Open door, Taltimiche greenhouse.
Right. Healthy tomato plants, Las Flores nursery

Box J.24: Sweet home

Dulce Hogar (Sweet Home) is a women's craft group, founded about 1994 in Taltimiche, Comitancillo, San Marcos. They have one strong, local leader, who helped the other twenty-five women find training, looms, and a market. They have a treasurer, a promoter and other officers. ADIPO and SHARE helped Dulce Hogar get Q. 9000 (\$1200) to buy thread and sewing machines. They loan out the thread to the individual members, keep careful records of dates and amounts. They take orders for cloth, fill the orders, and then pay back the thread into a kind of rotating fund. Seven of the older women have learned to use the looms and weave cloth (in Dulce Hogar's comfortable, well-lit, one room adobe house). But the younger women, with small children and jealous husbands, find it much more difficult to be away from home all day. They crochet hand bags at home; this lets them earn money while taking care of their other responsibilities.



Left. Women knit crochet handbags during a meeting at Dulce Hogar. The unfinished wood behind them are upright pieces of treadle looms

Box J.25: Not for the money

The La Cueva tree nursery has 53 enthusiastic members, and has been going since about 1994, with support from the Peace Corps, the UNDP and others. The women and a few men sit comfortably on the ground, poking holes in the earth-filled bags with well-worn dibbles. Meanwhile a woman and her children water the seedlings while others pick up fallen branches from the tall trees around the nursery. Everything seems well-managed and business-like. Only it is not a business. They only started selling tree seedlings since about 2004 (with help from ADIPO and SHARE). Then, after buying black-plastic bags and saving some of the money, they paid each member a dividend of 70 centavos (9 cents) per three-hour shift they had worked. Of course, being able to keep track of time and money for 53 people over a year is a solid management skill, but people who work for 20 centavos an hour are probably not motivated mainly by money.

The main goal is to plant trees. As we saw at the much newer (and smaller) tree nursery at Las Flores, people collect seeds from local cypress, pine and *aliso* (alder) trees, germinate them, transplant the tiny seedlings to bags, and when they are a year old, plant them on their own land. There are patches of trees (in rows) growing on the hillsides above the villages. As Doña Everilda said “If there are no trees, it will not rain.” Besides, in 15 years or so the trees are old enough to be firewood or building material. It is an encouraging example, because native trees are evolved to plant themselves, and may be difficult for people to manage (e.g. may die in nurseries). It was refreshing and encouraging to see local people planting native trees for their own use. As we saw in a different project in Bolivia (not with USAID), local people may want more native trees, but foresters are not always able to grow them, and may turn to easily-managed, exotic trees (Bentley and Valencia 2003).



Left. Everilda Aguilón Calderón and Carina Pérez Coronado plant seedlings in plastic bags in the nursery in Las Flores.

Right. Watering the trees in La Cueva. The communities are growing trees for the *trees* not for the money



Box J.26: Pigs, sheep and chickens

Isaías Méndez is a promoter for CARE in a remote hamlet of Santo Domingo, part of the village of Sichivilá, Concepción Tutuapa, San Marcos. The house is on a footpath, a twenty minute walk from the nearest dirt road (although a backhoe is now widening the path into a road). Isaías and his mother, Hilda Ramos, have a shed with five sheep and a goat. They shear the sheep for wool, and in emergencies they sell one of the animals. Isaías and Doña Hilda have a chicken coop with six hens, three ducks and two turkeys. They get six eggs a day, of which they eat about half and sell the rest in the village or in the market, so they can buy sugar, salt and incaparina (a grain mix).

The family also has a pigsty, but the pig is gone. Isaías explained that they bought a piglet for Q. 75 (\$10) and sold it six months later for Q. 400 (\$53), and unlike corn, pigs can walk to market, which is important when one lives off the road (Wilk 1991). Isaías says, since he started working with CARE he has been able to stay home all year, and avoid the grueling trips to pick coffee on the coast.

Near the homestead, maize, beans, broad beans (*haba*), wheat and other crops grow on what were until a few years ago steep slopes, but which are now steadily being reshaped into terraces, forming behind the rows of foxtail grass (*Setaria* sp.). Other institutions brought foxtail to the area, but CARE promotes it. Besides controlling erosion, the long grass stays green in the dry season, so people can feed it to their sheep and goats. With encouragement from CARE extension agent Hilario Gonzales, Isaías works about six neighbors, encouraging them to adopt soil conservation and loaning them foxtail grass.



Above. sheep pen repaid, with interest, into the rotating fund

Box J.27: Freedom through coffee

Like most of the people in the village of Santo Domingo, Sichivilá, Concepción Tutuapa, San Marcos, Rigoberto Ramírez has worked hard all his life. But the maize, beans and broad beans never yielded enough to feed his family. So every year he went to the coast to pick coffee. In 2001, CARE organized a group of farmers in Santo Domingo. After analyzing their needs and interests, they started receiving training on soil conservation, live barriers and organic fertilizer.

In 2002, don Rigoberto decided to plant four *cuerdas* (1750 square meters, 0.43 acre) of coffee. He had never planted coffee before, only picked it for other people. In 2005 he picked his own coffee for the first time, 700 pounds of it. And his yields of food crops increased. Don Rigoberto now earns enough from his own farm that he has not gone to the coast since 2004. He is delighted to be able to stay home year round.

Written by Hilario Gonzales, edited and translated by Jeff Bentley



Left. Soil-conserving barriers of foxtail grass, and a crop of broad beans. Micro-irrigation, soil conservation and a mix of food crops, cash crops and livestock can make for a functional family farm

Box J.28: Growing cash

In Monte Perla, Tajumulco, San Marcos, each family has about four *cuerdas* (1750 square meters) of potatoes, cabbage, onion, carrots, *cilantro* (coriander), and broccoli, all grown with hand tools on steep slopes. With irrigation and a warm climate, they can plant three crops a year. After Caritas (CRS) agronomist Mynor Huertas encouraged 25 families to form a group, they organized their irrigation to share hoses and bring water from the source in the mountains—whereas before each person had to tap into the stream himself with his own hose.

Caritas helped them to build a greenhouse. The plastic sheeting cost Q. 1200 (\$160), the cement cost Q. 150 (\$20), and four pounds of nails came to Q. 20 (\$2.67). Local people contributed Q. 1500 (\$200), worth of wood, and their own labor. Before they had the greenhouse, they used to go to San Marcos, buy seedlings and bring them back on a bus trip of several hours. Many of the plants wilted and died. With the greenhouse, the seedlings are much healthier.



Left to right: Justiniano López, Flavio López (rear), Juan Crisóstomo, Mynor Huertas, Julio López and Edgar Chávez

Although they cooperate with irrigation and the greenhouse, each family still works its own land, and sells the vegetables themselves on the local market.

After the community was battered by Hurricane Stan in October, 2005, many fields slid off the mountainside, and tubes for irrigation and drinking water were lost. The people repaired them as soon as they could, but it took several weeks and meanwhile the seedlings in the greenhouse dried up and died. Undaunted, they bought more seed (Caritas helped with 60% of the cost) and replanted.

A back-of-the-envelope budget suggests that potatoes are profitable (see table, this box). Cabbage grosses about Q. 2000 (\$267) per *cuerda*, with costs similar to those of potatoes. Other crops have comparable costs and benefits. So a family with four *cuerdas* and three crops per *cuerda* might be able to net Q. 6000 (\$800) or more, which is a living wage in rural Guatemala.

Cost and income from a <i>cuerda</i> (437 m ²) of potatoes	
Production costs	Q. 900 to Q. 1400 (\$120-187)
yield	25-30 qq (1135-1360 kg)
price	Q. 75 to Q. 150 per quintal (\$10-20 per 100 lb.)
Gross receipts	Q. 1875 to Q. 4500 (\$250-600)
Net	Q. 475 to 3600 (\$63-480)

There are several reasons this group was successful: They built on a familiar activity. But they added appropriate new technology and some capital investment. They worked together when it made sense to work together (e.g. organizing their greenhouse and their irrigation network). And they worked as individuals when it made sense to work alone (e.g. tending their gardens).

Box J.29: Geography counts for something

In Malacate, also in Tajumulco, San Marcos, a different group works with Mynor Huertas, the same Caritas (CRS) extension agent as in Monte Perla. Mr. Huertas is a master extension agent. He can teach people to make perfect compost. He is well-versed in plant diseases, and he knows how to grow coffee. He had a great success in Monte Perla, which he was trying to repeat in Malacate, about 400 meters lower, at 1800 meters above sea level. For years most of the people in Malacate went annually to the coast to pick coffee.

Right. Mynor Huertas stands by some of the tall coffee trees in Malacate. The next step is to prune them back so the trees will be more productive.

Below. Vernever Romero, local promoter for Caritas, and the coffee nursery, the first one in the community. The nursery will help them lower costs and improve quality



In just two years, Huertas brought many new ideas to Malacate. For example, he organized a group to plant a bush variety of black beans. People divided the first harvest and took the seeds home, and will plant them when the rains come. The group planted a forest tree nursery, and a vegetable garden; they each made a compost heap. The group also made a coffee nursery, which none of them had done before. This will help them control the quality of their seedlings, and lower costs.

The coffee trees in Malacate are too tall. Agronomist Huertas realized immediately that if they would stump the trees (cut them down almost to the ground) the trees would grow back healthier, with higher yields, besides being shorter and easier to pick. But he was sensitive enough to know that people would be reluctant to chop down their coffee trees, so he plans to do demonstrations with a few trees.

People here are still migrating to the coast, still locked in poverty. One reason is that they have little irrigation, and only about three *cuerdas* of land, even though they are not surrounded by large estates (i.e. there is little other land nearby to buy, even if they could pay for it). When people have little land and water, appropriate new technology can help, but it is all the more difficult to help them improve their incomes.

Box J.30: There is always work in Mexico

In Canibalillo, Tanalá, San Marcos, Eleuterio López planted 13 *cuerdas* of maize (5690 square meters, about an acre and a half). Then Hurricane Stan washed away nine *cuerdas* (3940 square meters, about an acre). Don Eleuterio is not sure if maize will still grow on the landslide where his field once was. Since he lost his whole harvest, he is about to run out of food. He said he would have to go to Mexico to work, to buy food. It is not coffee harvesting season, but as don Eleuterio says “There is always work in Mexico.” The coffee trees have to be pruned, and the groves have to be weeded. He raised 11 children by working in Chiapas.

CRS and Caritas have taken several appropriate technologies to Canibalillo, to try to ease the poverty. They organized 37 people to receive food-for-work, and the group was so popular that four more people joined, just to get the technical training. They have made a nursery of native trees, learning to plant the trees from seed. In 1995 they transplanted 6000 trees of oak, cypress, pine, alder. This year they will plant more.

The group vaccinated 27 cows and horses, 10 pigs, 39 sheep and 80 chickens. Caritas agronomist Fausto Roblero taught them to make soil conservation ‘live barriers’ of foxtail grass, and to make compost, appropriately, with vegetation, ash, manure and household refuse. All this is good; the problem is that Canibalillos is far from the markets and there is little land. Many people farm five *cuerdas* (2190 square meters), but there is not much more land available nearby to buy. There is little stream water, only enough for a handful of people to irrigate. Of course, technology can still help: yields can be improved through compost, judicious use of chemical fertilizer, live barriers, new (drought-resistant) crops and varieties. Silos would help avoid losing food grains to pests after harvest. Livestock can be better managed, and the vaccinations are a definite step in the right direction. The local promoter could be trained to give vaccinations and medications, charging local people a small fee in order to replace the drugs when they run out (Catley et al. 2002). Integrated farms of livestock, food crops, forestry and a mix of cash crops could still improve incomes and manage risks.



Left. Eleuterio López and his compost pile

Box J.31: A box for laying eggs

In Canibalillos, Acela Morales has an old-style chicken coop, raised off the ground, with a ladder the hens can climb at night, to roost. In the daytime they roam free and feed themselves. The chicken coops described in earlier boxes are intended as improvements on this system, for example, to keep the dogs from eating the eggs. But Doña Acela has a wooden box where her chickens lay eggs, away from the dogs. She has four hens and gets four eggs a day. It is an interesting idea, and one worth learning more about.

Doña Acela's problem is disease. As soon as she gets 15 or 20 chickens, all but three or four of them die. Caritas recently vaccinated her chickens, which she appreciates very much.



Left: Acela Morales and the box where her hens lay eggs. Local ideas are worth attention
Right: Laying eggs in the box



Box J.32: Staying home to grow vegetables

Marcos Sales started growing vegetables with his sisters when he was a little boy. At first they just grew a little, and they did not see it as a serious option. They still migrated to Mexico to pick coffee, until one year about 1995 don Marcos went to Chiapas from “20th of September till the 25th of November,” and after two months he came home with just Q80. He decided it was not worth his while to go. Instead, he went to the United States for a year and a half and came home with a used car, but he says that while he was in the USA he noticed that “the Americans have money, but they work hard.” He decided to try harder to make a living with what he had.

His parents, like the other people in Corinto, Cuilco, Huehuetenango, bought their land from the *finca* about 1955. After dividing it among their children, each one had about five to ten *cuerdas* (2188 to 4375 square meters; half an acre to an acre). But with irrigated vegetables it is enough to make a living. CARE’s revolving fund helped community members buy vegetable seedlings and other supplies. All five of don Marcos’ children are in school, except for the oldest one who just graduated with his teachers’ diploma. It is easier for them to stay in school, since they do not migrate to the coast.

Don Marcos’ sister, Catalina, and her husband Andrés Ordóñez also raise tomatoes profitably (see budget below). It is easy for people from Corinto to travel to Cuilco, six km away, and people in town like the vegetables: they say they are cleaner and fresher from those from far away.

CARE’s revolving fund helped local people borrow small amounts of money to grow vegetables to eat and to sell, providing wholesome food for their municipality.



Above: Doña Catalina and don Andrés are pleased with the earnings from their tomato field

Cost and income from two *cuerdas* (875 m²) of tomatoes, don Andrés

Variable costs	Quetzales	US Dollars
2000 seedlings	Q. 500	\$67
20 qq chicken manure	Q. 1000	\$133
Bamboo stakes	Q. 390	\$52
String	Q. 240	\$32
Other	Q. 470	\$63
Total variable costs	Q. 2600	\$347
Household labor	28 days	
Income		
Expected harvest	200 boxes	
Price	Q. 60	\$8
Gross	Q. 12,000	\$1600
Net income	Q. 9400	\$1253
Net income per day worked	Q. 336	\$45

Box J.33: Mushrooms

An income generating activity should be based on a product the community has some experience with (supply) and which the market demands. One should never involve a community in a product for which there is neither demand nor supply. IMDI is a Mam development agency, centered on the small town of Todos Santos. In all other respects they seem like an excellent organization, but one of their young extension agents was eager to try out an idea he had learned in Chiapas: growing the mushroom *Pleroutus ostreatus*.

The people of Los Planes had no previous experience with this mushroom, but the young extensionist helped them build a black-plastic dark-house, boil corn cobs on which to culture the mushrooms, and buy mycelia (the vegetative part of a fungus, in this case, vegetative 'seed'). Once the community was committed to mushrooms, the extensionist quit IMDI, and left a new *técnico* with the activity. It has been a major struggle for the new extensionist and the 20 women and girls of Los Planes. Their first crop of fungi died. They learned to use less mycelium, to cut the cobs into smaller pieces and to apply them near the outside of the bag of cobs, not in the center. So in January 2006 they harvested a crop of mushrooms, worth Q. 1200 (\$160), just under their production costs (not including the first, failed crop).

The group is fortunate that the extension agent helped them sell the mushrooms. Actually, he took them to sell to his co-workers at the office. This suggests that the staff of IMDI are generous and committed to the communities, although it is above and beyond the call of duty for the employees of the NGO to buy all the products the villagers sell. SHARE's Mardoqueo Gil suggests that the extensionist take the mushrooms around to some of the tourist restaurants. It is an excellent idea. Before we left the village of Los Planes, the group offered us a meal of the delicious mushrooms, which would indeed appeal to many foreigners.

Cost and income from growing mushrooms

	Quetzales	US \$
Fixed costs		
Black plastic 30 yards @ Q.9	Q. 270	
String, nails, cloth, tacks	Q. 27	
Total, fixed costs (purchased)	Q. 297	
Fixed costs, amortized	Q. 30	
Variable costs (purchased)		
100 clear plastic bags	Q. 40	\$
"seed" 40 lb @ Q. 25	Q. 1000	
Sub-total, non-local variable costs	Q. 1040	\$138.67
Local material (not purchased)		
lime	Q. 75	\$
firewood	Q. 400	\$
Sub-total, value of local material	Q. 475	\$63.3
Total variable costs	Q. 1542	\$205.60
Total costs	Q. 1572	\$209.60
Group labor	189 days	
Income		
Harvest @ Q. 20	60 lb	
Gross	Q. 1200	\$160
Net income	Q. -372	-\$49.6
Net income per day worked	Q. -2	-\$0.26



Left Some of the group members, inside their dark-house, with bags of corn cobs hanging from the woodwork

Right Mushrooms growing on the corn cobs, on the outside of the bags



Annex K: Nutrition Impact Data from DAPs

Each of the CSs was asked to contribute data showing nutritional impact. Their goals for reducing WAZ malnutrition were as follows. CARE – 10%, CRS – 8%, Save the Children – 15%, and SHARE – 12%.

In 2004 and 2005 there was a shift from to monitoring WAZ and discussing it with the mothers to use of the “good growth” / “poor growth” standard of the MSPAS. Though weights continue to be taken in the field (as the basis for calculating the “good growth” expected and seeing if it was attained), not all organizations have continued collecting WAZ data centrally; thus it is not always available for recent years (but will presumably be taken in the final surveys). New goals, couched in terms of this new indicator, were not available.

CARE

Percent of participating children less than -2z weight for age by municipality.

Region	Municipality	Sept 03	Sept 05
Centro	CHICHICASTENANGO	38%	37%
Centro	SAN ANDRES SEMETABAJ	38%	26%
Centro	SAN PEDRO JOCOPILAS	37%	36%
Centro	SANTA CRUZ DEL QUICHE	46%	46%
Centro	SOLOLA	38%	32%
Verapaces	CARCHA	21%	12%
Verapaces	CHAMELCO	27%	24%
Verapaces	LA TINTA	29%	24%
Verapaces	PANZOS	26%	26%
Verapaces	TUCURU	33%	20%
Occidente	CONCEPCIÓN TUTUAPA	43%	46%
Occidente	CUILCO	25%	21%
Occidente	IXTAHUACAN	42%	32%
Occidente	TECTITAN	47%	31%
Average:		35%	29%

Data taken from monthly growth monitoring records.

The data on the chart above show that CARE has exceeded its goal of a 10% reduction in global malnutrition in five municipalities as of September, 2005. The average reduction of 17% ($= 1 - 0.29 / 0.35$) reflected movement in the right direction in 11 of 14 municipalities.

Catholic Relief Services

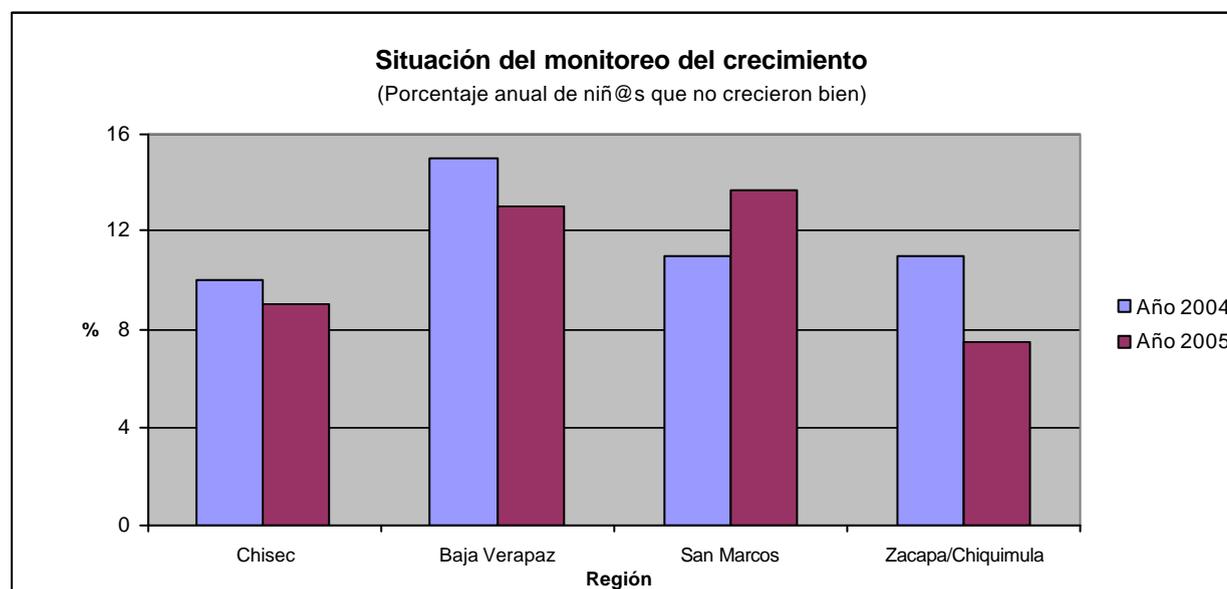
Growth Monitoring (Monitoreo del crecimiento)

Percent of Children that Did Not Grow Well (Porcentaje anual de niñ@s que no crecieron bien)

By region and year (Por región y año)

Región	2004		2005	
	Children Monitored Niñ@s monitoreados	% not growing well % que no crecieron bien	Children Monitored Niñ@s monitoreados	% not growing well % que no crecieron bien
Chisec	3,907	10 %	2,891	9 %
Baja Verapaz	3,761	15 %	3,640	13 %
San Marcos	4,031	11 %	4,026	14 %
Zacapa/Chiquimula	3,603	11 %	4,202	8 %
TOTAL	15,302	12 %	14,759	11 %

These data show that CRS has reduced the frequency of “poor growth” from 12% overall to 11%, or by about 8% of the initial level ($= 1 - 0.11/0.12$), in the course of a single year. Statistical significance has not been established. Note that CRS has been working in San Marcos and Zacapa-Chiquimula only since 2003.



Save the Children, USA

PREVALENCE OF CHRONIC and GLOBAL MALNUTRITION

WAZ (Global)	40.1	37.9	40.7	43.4	44.5	40.1	40.1	43.3	42.1	37.6	35.5
HAZ (Chronic)	74.3	NO	73.6	NO	74.8	NO	75.9	NO	74.6	NO	74
	Aug-03	Dec-03	Feb-04	May-Jun-04	Aug-04	Dec-04	Feb-05	Jun-05	Aug-05	Oct-05	Jan-06

Municipality		MALNUTRITION -2SD or more										
USPANTAN	WAZ	28.8	24.5	28	30.3	34.1	30.5	36.3	42.5	43.9	32.4	31
	HAZ	59.8	NO	61.1	NO	59.6	NO	68.5	NO	67.1	NO	66.4
NEBAJ	WAZ	47.1	42.5	43.3	44.1	43.5	41.1	40.1	43.2	39.3	36.1	33.8
	HAZ	84.1	NO	76	NO	78.2	NO	77	NO	77.3	NO	77.4
PATZITE	WAZ	35.7	26.2	39	47.2	49.7	48.9	49.4	43.1	46.5	46.9	44.4
	HAZ	77.4	NO	77.6	NO	79.3	NO	82.7	NO	77.7	NO	81.3
SAN ANTONIO	WAZ	32.5	34.7	29.8	40.2	45.4	44	35.5	44	45.6	44.1	37.9
	HAZ	71.4	NO	71	NO	74.3	NO	76.2	NO	79.8	NO	72.3
STA. CRUZ	WAZ	28.9	24.1	21.3	42.5	33.1	28.2	29.4	33.1	39.6	36.8	39.2
	HAZ	77.5	NO	66	NO	72.8	NO	68.9	NO	67.8	NO	65.5
CHAJUL	WAZ	47.4	44.9	46.1	48.8	49.6	39.5	41.8	41.5	40.4	34.7	33.9
	HAZ	82.5	NO	78.5	NO	77.9	NO	82.4	NO	76	NO	76.5
COTZAL	WAZ	43.5	40.4	47.5	45.6	49.4	43	43.5	46.5	44.7	41.1	38.5
	HAZ	72.9	NO	75.4	NO	76	NO	72.6	NO	71.8	NO	72.9

Data taken from quarterly analysis of growth monitoring records.

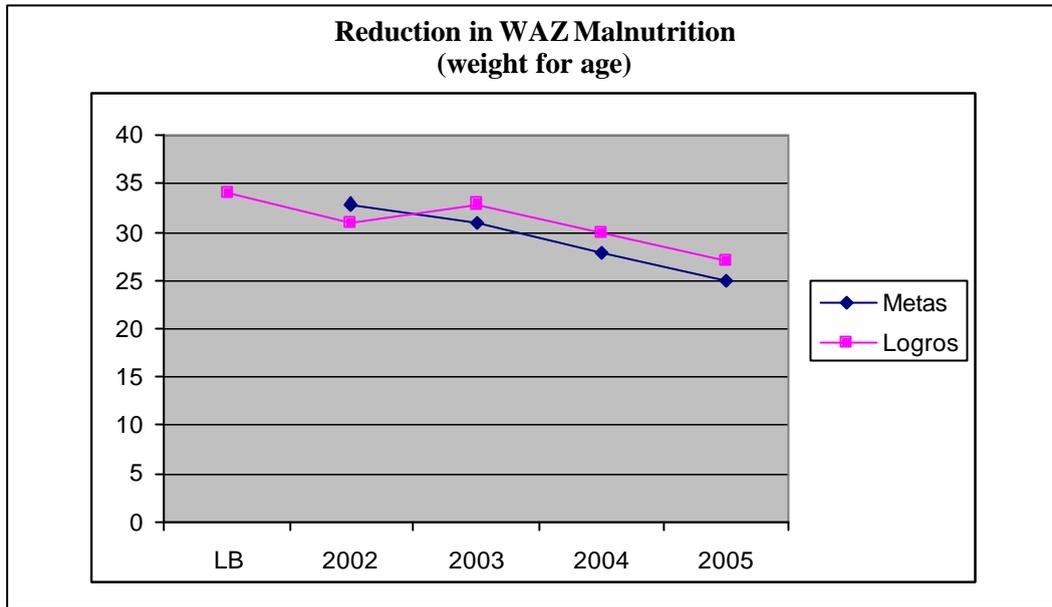
These data show that Save the Children lowered WAZ by an average of 11.5% (= 1-0.355/0.401) in 7 municipalities between Aug. 2003 and Jan. 2006; but since taking over direct management of the DAP at midterm, WAZ has lowered from a high of 44.5% in Aug. 2004 by 20% (= 1-0.355/0.445; Aug. 2004 to Jan. 2006). That reduction reflected movement in the right direction in 6 of 7 municipalities.

Save the Children also presented the data below which show that there is a trend towards improvement in weight gain (a reduction of 29% in those “growing poorly,” from an average of 28% in Aug. 2005 to 20% in Jan. 2006). However, many children classified as “growing well” in this MSPAS system are actually still below -2z according to the chart above. Weight gains are satisfactory for their size but they still meet the criterion for “underweight.”

**COMPARISON DATA BY MUNICIPALITY USING THE GROWING WELL /
NOT GROWING WELL CRITERION OF AIEPI-AINM -C
Save the Children – PROMASA**

Municipality	Months of analysis	total children classified	Total growing well	% Growing Well	Total Not Growing Well	% Not Growing Well
Chapul	Aug-05	918	674	73%	244	27%
	Jan-06	742	622	84%	120	16%
Cotzal	Aug-05	1056	772	73%	284	27%
	Jan-06	936	704	75%	232	25%
Nebaj	Aug-05	1511	1189	79%	322	21%
	Jan-06	1222	1024	84%	198	16%
Patzité	Aug-05	200	117	59%	83	42%
	Jan-06	168	105	63%	63	38%
San Antonio Ilotenango	Aug-05	541	359	66%	182	34%
	Jan-06	469	390	83%	79	17%
Santa Cruz del Quiché	Aug-05	162	115	71%	47	29%
	Jan-06	148	125	84%	23	16%
Uspantán	Aug-05	689	440	64%	249	36%
	Jan-06	558	420	75%	138	25%
Total	Aug-05	5077	3666	72%	1411	28%
	Jan-06	4243	3390	80%	853	20%

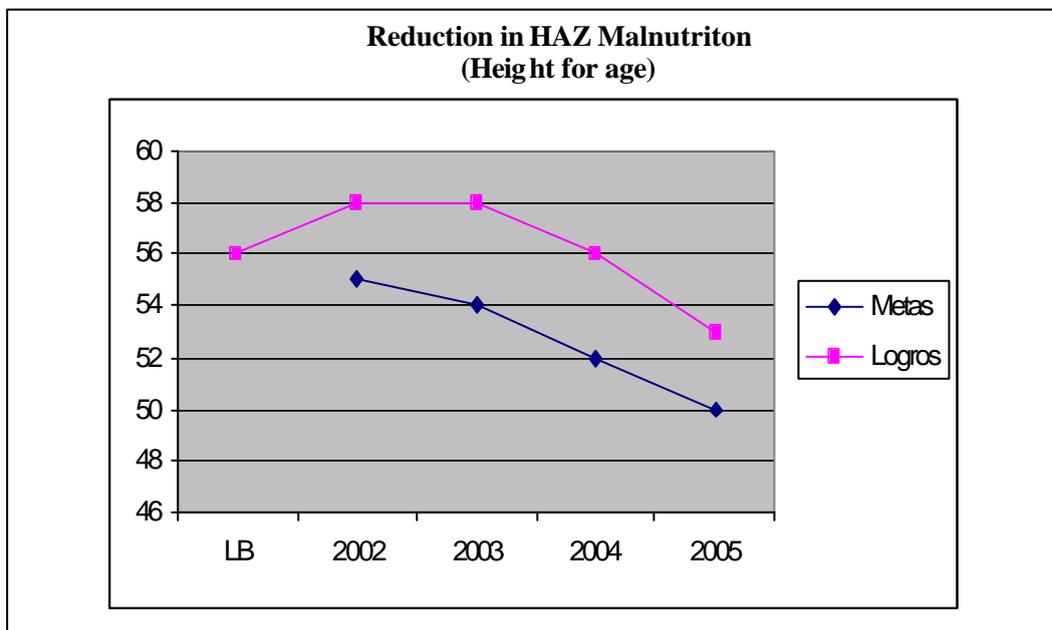
SHARE



Blue lines = goals.

Pink lines = achievements

Data are from annual surveys of random samples of project participants (both graphs).



These HAZ data show an 8.6% reduction ($= 1 - 0.53/0.58$) since SHARE consolidated operations in its new set of municipalities after the mid term site adjustments. They still have a way to go to attain the LOA goal of lowering stunting to 50% by 2006 shown in the IPTT (Annex B).

**RESULTADOS DE INDICADOR
DE DESNUTRICION GLOBAL (PESO-EDAD)**

SHARE DE GUATEMALA

No.	DEPARTAMENTOS Y MUNICIPIOS	2001	2005
HUEHUETENANGO			
1	Chiantla	35.0	34.4
2	Nentón	43.5	30.6
3	San Pedro Necta	30.2	27.4
4	Jacaltenango	29.6	21.6
5	Soloma	29.8	23.8
6	Todos Santos Cuchumatán	35.5	30.3
7	San Mateo Ixtatán	60.3	41.7
8	San Juan Ixcoy	39.2	27.2
9	San Antonio Huista	21.7	23.1
BAJA VERAPAZ			
10	Rabinal	31.0	23.1
11	Cubulco	41.1	27.4
ALTA VERAPAZ			
12	Fray Bartolomé De Las Casas	20.0	18.7
CHIMALTENANGO			
13	San José Poaquil	28.9	24.0
14	San Martín Jilotepeque	26.6	20.6
15	Comalapa	23.5	28.2
16	Santa Apolonia	22.6	24.6
17	Tecpán Guatemala	35.3	28.6
SAN MARCOS			
18	Comitancillo	43.2	37.1
Average:		33.1	29.2

This change corresponds to an 11.8% reduction in WAZ, approximately at the 12% target proposed by SHARE. It is still distant from the LOA target of 25% WAZ in 2006 (shown in IPTT, Annex B). A reduction was obtained in 15 of 18 municipalities.

Annex L: Terms of Reference

**PL 480 TITLE II EVALUATION
FOR THE
2001-2006 GUATEMALA TITLE II
DEVELOPMENT ASSISTANCE PROGRAM**

["Revised 21 December 2005"]

COOPERATING SPONSORS:

Catholic Relief Services (CRS)
CARE/Guatemala
Save the Children Federation (STC)
Share/Guatemala

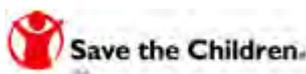


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I. INTRODUCTION

The purpose of the PL 480 Title II Evaluation is to (i) assess the extent to which the Cooperating Sponsors have accomplished the objectives of the current PL 480 Title II program in Guatemala; (ii) identify opportunities to improve the implementation of PL 480 Title II activities in Guatemala in the future; and (iii) quantify the program activities that have been successful and those that have not, as well as the reason why. USAID/Guatemala and the Cooperating Sponsors expect to use the evaluation results to ensure that the next cycle of multi-year programs is consistent with the Food For Peace Strategy for 2004-2008 and the USAID/Guatemala Country Plan for 2006-2010 and incorporate lessons learned from current DAPs to improve design and performance for follow-on MYAPs.

Chronic child malnutrition in Guatemala is high, persistent, and with strong ethnic and geographic inequities. Guatemala continues to have the highest rate of chronic malnutrition (49% nationally) in this hemisphere, higher than many countries in Africa. Guatemalan chronic child malnutrition is most severe amongst the indigenous population (indigenous 69% vs. non indigenous 35%). Relative levels have changed little since 1995. At current rates of progress, it would take 20 years to eliminate stunting amongst the non-indigenous and 83 years among the indigenous.

The Office of Food for Peace Strategy for 2004-2008 focuses its efforts on the reduction of food insecurity in vulnerable populations because this formulation puts the focus on those populations already food insecure or vulnerable to food insecurity. The target populations of the strategy are those who are at risk of food insecurity because of poverty levels, geographical vulnerability, community infrastructure and risk to disasters, educational level or illiteracy of their parents, among other characteristics.

The 2004 – 2008 Country Plan for Guatemala focuses on just accountable governance, economic expansion, and better educated and healthier people. Under the Country Plan the Guatemala PL 480 Title II program takes on paramount importance through effective integration with Development Assistance resources for achieving the cross-cutting objective of Improved Food Security for at-risk Guatemalans. The basic premise is that at the end of the strategy period municipal governments and communities will play a stronger and more effective role in directing resources toward their at-risk populations; mothers will possess the knowledge and improved practices at the household level to better maintain their health and nutritional status and that of their children under 2 years of age; and that families in food insecure areas will have diversified their incomes by engaging in higher value market production with improved infrastructure to reduce marketing and other transaction costs.

II. PROGRAM BACKGROUND

The current USAID/Guatemala PL 480 Title II program is implemented through four Cooperating Sponsors (CSs): Catholic Relief Services (CRS), Save The Children Federation (STC), CARE/Guatemala and SHARE/Guatemala through Development Activities Plan (DAPs). USAID/Washington approved the CARE, SHARE and SCF DAPs in 2000 for a period of five years FY 2001 through FY 2005, however the CRS DAP was approved in 2001 for a five year period FY 2002 through FY 2006. In FY 2004, USAID/Washington extended the CARE, SHARE and SCF DAPs through Fiscal Year 2006 so that all DAPs could be on the same cycle.

As set forth in detail in the DAPs, the current USAID/Guatemala PL 480 Title II program is based on three principles:

1. A Development Orientation

The Title II program aspires to be a true "Development Program". Food and local currency resources are used to support community and municipal efforts to overcome development constraints and enhance household food security. CSs focus their efforts on creating opportunities for households to achieve sustainable improvements in real income. Food resources are used in conjunction with training and technical assistance activities that help build a foundation for sustainable development i.e. activities in the Maternal Child Health Program that distribute food rations to malnourished individuals.

2. Geographic Focus of "Food Insecure" Areas and Populations

With the approval of the current DAPs, all four CSs committed to working in areas of high or extreme levels of food insecurity. Food insecure areas were identified through existing socioeconomic data: Ministry of Agriculture Geographic Information System (SIG-MAGA) Demographic Health Survey 2002 (Encuesta Nacional de Salud – Materno Infantil 2002); The Guatemalan situation on Food Security and Nutrition (Situacion de la Seguridad Alimentaria Nutricional de Guatemala); and other pertinent documents.

3. Emphasis on Sustainability

Sustainability refers to the degree to which Title II program interventions establish the basis for continued impact after the end of CSs' involvement. The CSs should emphasize sustainability by focusing on the involvement and cooperation of municipalities, cooperating institutions and beneficiaries in the development activities carried out by them. Programs may use different approaches to emphasize sustainability such as training and capacity building of community leaders and municipal level partners. In the case the implementation is through agreements with municipal governments, CSs have implemented them through an "Inter-Institutional Agreement"; and in some cases, the municipal government has counterpart funds ranging from 10 to 30 percent. This helps ensure that local governments will be able to continue similar interventions after CSs leave the area. Some CSs recognize that active, continued participation is essential to sustainability. As a result, all activities have an explicit training component and high degree of local control.

USAID/Guatemala's Title II program is explicitly directed at reducing high levels of food insecurity and poverty in Guatemala. It has four interrelated goals:

- I. Improving the availability of food at the household level through increases in agricultural productivity.
- II. Increasing incomes and enhancing access to food through improved marketing links.
- III. Reducing maternal and child malnutrition and improving biological utilization of food through integrated health, education and water and sanitation interventions.
- IV. Supporting citizen participation and institutional strengthening at the local level.

III. PURPOSE OF THE EVALUATION

The purpose of the PL 480 Title II Evaluation is to (i) assess the extent to which the Cooperating Sponsors have accomplished the objectives of the current PL 480 Title II program in Guatemala as laid out in each DAP; and (ii) identify opportunities to improve the implementation of PL 480 Title II activities in Guatemala in the future. The evaluation is an opportunity for joint Cooperating Sponsor and USAID/Guatemala assessment of DAPs accomplishments as compared to original plans. USAID/Guatemala expects the evaluation team to work with local CS and USAID staff to identify problems and constraints, and

develop actionable recommendations to improve the future design and implementation of the Title II program in Guatemala. The results of the evaluation will also inform the CS development of new Multi-Year Assistance Programs consistent with the Food For Peace Strategy for 2004-2008 and the Country Plan for Guatemala for 2004-2008. The evaluation will:

1. Describe overall program performance during the current DAP period in terms of results achieved and impact on target groups compared to specific program objectives and goals taking into account factors of implementation specific to each CS.
2. Identify opportunities and alternatives to produce long-term results with significant impact on household incomes, maternal and child health and nutrition status, natural resource management, and food security when appropriate, for integration into follow-on MYAP design.
3. Recommend adjustments in program design and implementation for the next multi-year program proposals.
4. Describe overall Regulation 216 compliance and implementation of environmental mitigation actions described in their approved IEEs.

IV. STATEMENT OF WORK

A. PL 480 Title II Program Targets and Results

The evaluation team will review the 2001-2006 DAP indicators, targets and results by sector and PVO; summarize program results, achievements or shortcomings; and analyze resource allocations, and analyze situations and causes where achievements differed significantly from initial targets.

When reviewing indicators, targets and results, the evaluation team must consider the effects of Hurricane Stan in each of the geographic areas attended by the CSs. In addition, recommendations and suggestions for interventions to diminish the medium and long term effects caused by the disaster, must be provided.

With respect to the overall USAID/Guatemala PL 480 Title II program, the evaluation team will answer the following questions related to indicators, targets and results in the DAPs:

1. What has been the overall impact of the Title II program on household food security during the period of implementation? What have been the most important constraints in achieving household food security? What adjustments could be made in future programs to overcome them?
2. Are the selection criteria appropriate to identify and target the most food insecure communities and households? If not, what modifications are necessary for the criteria?
3. Which activities have been most successful/effective in addressing critical issues and achieving results? Which activities were not successful and why?
4. Are the actual indicators appropriate to monitor progress and impact, or are some adaptations necessary?
5. What steps could be taken to better integrate the next multi-year program proposals with the USAID/Guatemala Strategy and the Stan Reconstruction Strategy
6. Are the CSs indicators consistent with Food For Peace core indicators.
7. What have been the ration distribution approaches or models CSs have implemented, both for MCH and FFW programs? How culturally appropriate are the current rations, and how can we improve them with the available commodities?
8. What are the specific activities that will help improve income, agriculture/natural resource management, maternal and child health and nutrition, and municipal and community strengthening, in light of the damage caused by Hurricane Stan.

B. Program Approaches and Suggested Modifications

The evaluation team will review approaches, activities and results in the following programmatic areas: income generation, agriculture/natural resource management, maternal and child health and nutrition, and municipal and community strengthening. It will also review and evaluate the monitoring systems of the CSs including how they implemented the environmental mitigation activities described in their approved IEEs. Based on this review, the team will provide recommendations for the design and implementation of the next multi-year programs to achieve greater and more sustainable impacts. This is the most complex element of the evaluation, and is expected to represent the bulk of effort.

Income Generation Interventions:

Regarding income generation interventions, the evaluation team will answer the following questions (taking into account that each CS has different strategies/activities for income generation):

1. What have been the impact/results/achievements of the income generation activities in terms of increasing household income and improving food security?
2. Are CS programs providing an integrated set of interventions to address the greatest constraints to increased income and food security? If not, where are the weaknesses?
3. Are income generating activities based on a supply-side approach, or on responding to identified demand for products?
4. What are the greatest opportunities/potentials for the Title II program to improve the quantity and quality of farm production, increasing the volume and value of product sales, and improving the environment for micro/small/medium enterprises? Have CSs begun to evaluate and/or implement non-farm production activities? How could these activities play a greater role in follow-on programs?

Agriculture/Natural Resource Management

Regarding agriculture/natural resource management interventions, the evaluation team will answer the following questions:

1. What have been the impact/results/achievements of agricultural/natural resource management and technology transfer in terms of increasing food production, conserving natural resources, and improving food security?
2. Are CS programs providing an integrated set of interventions to address the greatest constraints to sustainable agriculture/natural resource management and food security? If not, where are the weaknesses? (considering the differences among CS in terms of target population, type of beneficiaries, intervention areas and indicators)
3. What are the greatest opportunities/potentials for the Title II program to improve the sustainable agriculture and natural resource management practices and enhance their contribution to increased household food security?

Water and Sanitation

1. What have been the impact/results/achievements of the water and sanitation activities in terms of improving food security of participating families?
2. What are some successful methods/experiences of implementation of water systems to improve household health?

Regulation 216 compliance

1. Are CSs using the 216 environmental regulation as the principal environmental tool for planning and development of the activities contained in their DAPs?
2. What is the level of knowledge of the existence and use of the IEE on the programmatic actions on each CS?
3. What is the level of fulfillment of the recommendations contained in the IEE for each CS?
4. Have the CSs developed, and are they using environmental tools (guidelines, checklists, etc.) to fulfill the recommendations of the IEE?
5. Do CSs have their own environmental monitoring systems to support environmental regulation compliance?

Maternal and Child Health (MCH) and Nutrition Interventions

Regarding maternal and child health (MCH) and nutrition interventions, the evaluation team will answer the following questions:

1. To what extent are the targeted communities participating in the design, implementation and monitoring of the MCH and nutrition interventions? To what extent are the municipal governments aware of and involved in the MCH and nutrition interventions?
2. Are the food aid and nutrition education activities clearly linked to public services of the Ministry of Health (MOH) including services provided by NGOs under MOH contracts/grants? To what extent is there overlap of the MCH component and integration with MOH health services taking place?
3. Is there evidence of effective coordination with local MOH staff at the targeted MCH communities?
4. What are the trends over time of the following indicators in the CSs targeted communities, and what is the impact of the MCH component on growth of children. What has been the CS impact with regard to their MCH – related indicators especially chronic and global malnutrition? Is there evidence of improved household health and nutrition practices among the program beneficiaries?
5. To what extent does the MCH component overlap with USAID's bilateral health program, which serves all municipalities in the 7 departments of the western part of the country? If they overlap, are they working in coordination? If yes or if no, what affect has this had on the impact of the MCH component?

Democracy and Municipal Strengthening Interventions

Regarding democracy and municipal strengthening interventions, the evaluation team will answer the following questions (when applicable, according to each CS objectives):

1. Are the CS targeted communities integrated in COCODES (Consejos Comunitarios de Desarrollo)?
2. What type of support do the CSs provide for the integration and function of the COCODES?
3. How do the CSs take into consideration the Municipal Plans to implement their activities?
4. What roles did the communities have in the development of the CS's activities?
5. What municipal strengthening activities do the CSs support at the municipal level?
6. What citizen participation activities do the CSs support at the municipal level?
7. What type of activities do the CSs support with the Municipal Planning Offices (OMPs)?
8. Are the mayors aware of the CSs activities and do they support them?

C. Monitoring Systems

With respect to the CSs monitoring systems, the evaluation team will evaluate (i) the collection, analysis, and use of annual indicator data in project management and reporting; (ii) the current structure of monitoring systems and data accuracy, and (iii) the information flow within regional and head offices and provide recommendations for improving the use of information. In addition, the evaluation team will answer the following questions:

1. Are current indicators reasonable? If not, how do they need to be modified in the next MYAP?
2. Are monitoring and evaluation (M&E) data shared with the communities and beneficiaries?
3. What current or new indicators/results should be added to the new MYAPs that are feasible to impact Title II programs?

D. Monetization

Regarding the monetization part of the USAID/Guatemala Title II program, the team will evaluate if the proceeds of selling the commodities are used in accordance with the program's objectives. In addition, the evaluation team will answer the following questions:

1. Are the uses of monetization proceeds the most appropriate ones to support the goals of the DAPs?
2. According to FFP requirements, is the percentage of the food aid which is monetized appropriate to the percentage used directly for MCH supplementary feeding or Food for Work?

V. COMPOSITION OF THE TEAM

The evaluation team will be composed of 4 members: a team leader (who will also play the role of one sector specialist), two other sector specialists (to make a total of three sector specialists), and one administrative support person. It is preferable that the administrative support is locally hired.

All team members (except for the administrative person) must have an advanced degree (MSc or higher). USAID/Guatemala and the CSs must approve individuals proposed for these positions. Due to possible conflicts of interest, no team member should be a full-time employee and thus receiving benefits from any PVO currently carrying on Title II projects. Requirements for each one are detailed below:

1. Team Leader

The team leader will be responsible specifically for coordinating all evaluation activities, supervising the team, meeting all specified objectives, evaluating and monitoring systems, collaborating with each CS and USAID/Guatemala, presenting the evaluation results, and submitting drafts and final reports according to the defined timeline. This person should be knowledgeable of Title II programs, have experience and demonstrated performance in food security programs, and have a good understanding of the country's history, geography, the social and economic situation.

In addition, it is expected that the team leader will also be a specialist in one of the following sectors/areas:

2. Sector Specialists

In addition to the team leader, the evaluation team should include four sector specialists:

- a. One specialist will be responsible for the maternal and child health and nutrition sector and will coordinate all evaluation activities related to this sector in order to meet the evaluation objectives.

- b. A second sector specialist will be responsible for activities related to the design and implementation of the agricultural technology and production, income generation, market development.
 - c. A third sector specialist will be responsible for activities related to infrastructure and environment.
3. Local Counterparts: the evaluation team will include a local counterpart, responsible for the coordination of all administrative and logistic activities. This person will accompany the evaluation team at all times during field visits, meetings, and other evaluation activities. Fluency in English (oral & written) is required.

4. Cooperating Sponsors Representatives

Each CS will designate one representative for each of the sector teams. The CS representatives will assist the sector specialists in meeting evaluation objectives while facilitating the evaluation process for their CS target area. The CS representatives will at a minimum perform the following activities:

- Provide background documentation to the evaluation team and/or sectoral expert related to the DAPS, CSs Title II activities and specific information of the component under his/her responsibility
- Provide information, reports or other key M&E documentation or access to M&E systems and data as needed by the evaluation team;
- Suggest key contacts, site visits and stake holders interviews to facilitate the evaluation team information exchange; and
- Coordinate and participate in the evaluation team's field visits, as well as additional discussions and/or meetings as requested by the evaluation team.

The CS counterparts will not develop any written material for the evaluation team, apart from providing existing background documentation.

VI. METHODOLOGY

Through participatory methods, the evaluation team will examine Title II program approaches and results using both quantitative and qualitative methods. Before the arrival of the Team, each CS, under the supervision of a specialist designated within the PVO, will collect the quantitative information for all of the indicators of the program contained in the IPTT (Indicator Performance Tracking Table). Although not required CSs can also provide data on additional indicators. The team will work closely with USAID/Guatemala and the CSs in all phases of the evaluation. Field visits will allow program participants and CS staff to provide their inputs to the evaluation process. The evaluation will take place in two phases:

Phase I

Participatory planning

The evaluation team leader will identify necessary materials and distribute to the team. Team members will review project documents- including approved proposals and subsequent Amendments, results and documentation from the baseline survey and existing data from project monitoring.

Evaluation methods

The evaluation team will conduct interviews with USAID/Guatemala and CS staff to refine and evaluate methods (field visits, observations, questionnaires and meetings with participants).

Field work

The evaluation team will coordinate all necessary logistics for the qualitative collection of the data and plan for 5 days per CS when conducting field visits

Phase II

Continuation of field work

Final reporting

The evaluation team will prepare a draft preliminary evaluation report with all conclusions and recommendations. The Team Leader will hold a halfday meeting to present findings and discuss lessons learned and recommendations to USAID, CSs, and GOG.

VII. TIMETABLE: See Annex III

VIII. REPORTING AND DELIVERABLES

There are five "deliverables" for the Evaluation:

- a) A detailed Evaluation "Implementation Strategy" (work plan) with a timetable for approval by USAID/Guatemala and the CSs within 15 days after contract/agreement is signed;
- b) A draft Evaluation report in English;
- c) A meeting reporting on lessons learned and recommendations from the evaluation results;
- d) Five copies in English of (1) the Final Evaluation Report, and (2) Summary of Evaluation Report, five copies in Spanish and one copy in electronic form in English and Spanish, for each CS and USAID.

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ANNEX I: Illustrative guide for the preparation of the summary evaluation report

Table of Contents

List of Acronyms

1. Executive Summary: stating main findings, conclusions and strategic recommendations
2. Introduction (objective of the Scope of Work, brief description of the Program, describing the purpose of, and the audience for, the assignment and a synopsis of the task)
3. Evaluation Methodology
4. Country situation (background and problem analysis)
 - a. General Overview of Title II Program Performance, results framework and interventions
 - b. Achievement of Objectives (highest level intended result with partners and relationship to USAID food security policies, strategies). Rationale of the actual program (basis for selecting target areas, strategies, interventions, including country factors, USAID priorities, partners mandates, experience, resources, comparative advantage etc)
 - c. Achievement of intermediate results: results to date, lessons learned, best practices, gaps, duplication of efforts, cost effectiveness.
 - d. Special concerns: Policy environment/constraints: critical assumptions taken/not taken into consideration in program development, implementation and adaptations
5. Implementation level: DAPS-CS contributions: successful interventions, synergies among program components, coordination with key actors/stakeholders, community empowerment, municipal involvement, Program Implementation modalities
6. Title II Program Monitoring Systems
7. Results of the evaluation per program component: each component should contain at minimum a brief description of the interventions, implementation progress and achieved results, other achievements, discussion of general evaluation questions, discussion of findings for specific technical sector questions, gaps, successes, etc.
 - a. MCH
 - b. Income Generation/ Natural Resources
 - c. Democracy
8. Cross-cutting issues
9. Discussion of findings: for both the remaining period of the current DAP and for design of the new five year MYAP. Suggested adaptations for future MYAPs. Lessons learned and recommendations.
10. Annexes
 - a. Individual report for each CSs: findings and suggestions pertinent to each CS (no more than 5 pages per CS)
 - b. List of persons/consultants interviewed
 - c. Background supplemental materials useful for a full understanding of the report
 - d. An annotated bibliography of significant documents used or consulted

ANNEX II : PL 480 TITLE II PROGRAM DOCUMENTS

1. Dollar value of the program, breaking out the dollar value of the commodities from the dollar support the CSs receive from FFP to administer the program (202e)
2. Type of commodities and tonnage for the program
3. Percent of all the commodities monetized
4. Rations: types of foods and amount per month given to the different categories of beneficiaries, as well as the protein and calorie content/day of the ration by CS
5. Number of beneficiaries in the various components
6. Geographic location of program activities as well as selection criteria for communities and program participants (and amount of time CS has worked in a given area)
8. Four DAP Approved Proposals and subsequent Amendments – CARE, CRS, SHARE and SCF
9. Stunting in Guatemala Study by Martorell and Flores
10. Article on the AIEPI AINMC-C program published in SCN News
11. Malnutrition and Poverty in Guatemala, World Bank Policy Research Working Paper 2967, January 2003 by Alessandra Marini and Michele Gragnolati
12. Baseline and any follow-up evaluation surveys conducted by CSs for the DAPs
13. Informe de Visitas de Aprendizaje sobre las Experiencias de Implementación de la Estrategia AIEPI AINM-C de MSPAS, Calidad en Salud y ONG Socias de USAID (CSs), August 2004, University Research Corporation
14. Segundo Censo Nacional de Talla, MINEDUC, 2001
15. Food For Peace Strategy for 2004-2008
16. USAID/Guatemala Country Plan for 2004-2008
17. USAID/Guatemala Stan Reconstruction Concept Paper
18. Guiding principles to improve title II food aid to increase nutritional and health impact
19. AIEPI-AIMN-C reports/materials
20. Previous Title II evaluation documents
21. Food Security Strategy – Roberto Castro 2001

ANNEX III: TIMETABLE

Activity	Deadline
Evaluator(s) Contracted	January 20 th , 2006
Evaluation team arrives in Guatemala	January 23 rd , 2006
Evaluation begins	January 25 th , 2006
Monitor status of evaluation process	On going
Evaluator(s) Present 1 st evaluation report (draft) to Mission FS committee members	March 17 th , 2006
Visit of FFP Officer from DCHA/FFP (Allyn Moushly to participate in draft review) and RFFPO Daniel Sanchez Bustamante	Pending
CS and mission send evaluators their comments to 1 st draft evaluation report	April 3 rd , 2006
Evaluator(s) deliver present Final Report	April 24 th , 2006
Presentation of Evaluation Results	May 12 th , 2006

Annex M: Hunger and Food Insecurity in Guatemala

U.N. COMMISSION ON HUMAN RIGHTS
Sixty-second session, Item 10 of the provisional agenda

ECONOMIC, SOCIAL AND CULTURAL RIGHTS

The right to food

Report of the Special Rapporteur on the right to food, Jean Ziegler

MISSION TO GUATEMALA

[Excerpt: Paragraphs 6-20 of original report]

HUNGER AND FOOD INSECURITY IN GUATEMALA

A. Hunger and food insecurity

Chronic child malnutrition is more than twice as high in Guatemala than in most countries of Latin America and among the highest in the world (only higher in Yemen and Bangladesh).² Today, half of Guatemalan children under the age of five are stunted,³ far more indigenous (70 per cent) than non-indigenous (36 per cent).⁴ Acute malnutrition is concentrated in the poorest regions, particularly the northeast,⁵ although in the wake of recent crises, including the collapse in world coffee prices and localized droughts in 2001, acute malnutrition levels have increased in the east, south coast and the west, and there has even been the reappearance of kwashiorkor.⁶ More than 15,000 Guatemalan children under the age of five die every year.⁷

Widespread hunger and malnutrition in Guatemala is not simply a question of the availability of food, as Guatemala's land could theoretically feed the whole population. It is more related to inequities in the distribution of resources and people's access to food. The distribution of wealth in Guatemala is one of the most inequitable of all the countries in the world, and the concentration of wealth is extreme - 5.6 per cent of the richest households control 50 per cent of total income.⁸ Economic growth has not reduced inequality, with the benefits of growth accruing mainly to the rich.⁹ Land ownership is highly concentrated, with 2 per cent of the population owning up to 70-75 per cent of agricultural land. According to non-governmental organizations (NGOs), 47 huge plantations take up over 3,700 hectares, with vast tracts of land remaining uncultivated, while 90 per cent of small farmers survive on less than 1 hectare.¹⁰ Such extreme inequality means that the majority of Guatemalans are excluded from development, with hunger and exclusion contributing to crime and social conflict. During the visit of the Special Rapporteur, a 15-year-old boy was killed on 24 January 2005 for stealing a fruit from Finca El Corozo, and four peasants were killed when they went looking for the child.¹¹

Two thirds of Guatemala's people are too poor to feed themselves adequately - in more than 60 per cent of Guatemalan homes, spending on food does not meet minimum daily dietary requirements.¹² According to Government statistics, one third of Guatemalan families cannot afford even half a minimal food basket (2,172 calories per person per day).¹³ The statutory minimum wage is not set in relation to food costs and purchases only 56 per cent of the food basket. Food prices have increased faster than the minimum wage¹⁴ and the price of tortillas, Guatemala's basic staple food, increased by 66 per cent over 2004.¹⁵ More than half the population (56 per cent) live in poverty,¹⁶ mostly in rural areas in the north and northwest regions, the

Department of San Marcos, and the southwest region.¹⁷ Extreme poverty is highly concentrated amongst the indigenous peoples (70 per cent), particularly the Mam and the Q'echi, reflecting serious discrimination against indigenous populations.¹⁸

The hungry and malnourished are predominantly indigenous people and poor peasant farmers or agricultural workers living in rural areas.¹⁹ Poor subsistence farmers lack access to sufficient, good quality land and survive on *microfinchas* (smallholdings) of less than one hectare of unproductive land, while farmers told the Special Rapporteur they would need 25 hectares of fertile land to feed their families adequately. Hunger and malnutrition levels are closely linked to the quantity of land held - children of families possessing less than 2 *manzanas* of land (6,987 m² = 1 *manzana*) are 3.2 times more likely to be malnourished than families possessing more than 5 *manzanas*.²⁰ On average, indigenous households hold 0.25 *manzanas* per person, whereas non-indigenous households have 1.5 *manzanas*, six times more land.²¹ Many *campesinos* (peasant farmers) earn extra income as temporary agricultural workers during harvest on the coffee, sugar and fruit *fincas* (estate farms), but this still is insufficient to meet their nutrition needs.²² Permanent workers on the *fincas*, often tied into a *colono* system (under which landowners provide subsistence plots in exchange for labour), also work for extremely low wages. The statutory minimum wage has risen in recent years, but many landowners have shifted to payment per task instead of per day to minimize the impact. Landowners often avoid paying legal entitlements by dismissing workers repeatedly to keep them on non-permanent contract status,²³ and often dismiss workers that negotiate for better conditions.²⁴ Persistent discrimination against indigenous peoples is reflected in an extremely high wage gap between indigenous and non-indigenous workers. Gender discrimination is also pervasive, and it is reported that many landowners do not even pay women or children for their work - they are considered husband's "helpers".²⁵ Women suffer multiple discrimination - as women, as poor, as rural residents and as indigenous,²⁶ - and rarely own land or other assets. Child labour also remains common in Guatemala, with around half a million children working in coffee and sugar plantations. Migrants are also particularly vulnerable to poverty and hunger.

After the recent collapse in world coffee prices, many landowners did not pay salaries to their workers, leaving many in extreme poverty. Agricultural workers on large *fincas* provided testimonies that they had not been paid for work already undertaken, and that the response to their claims was violent repression and forced eviction from the estates where they had lived all their lives. Church organizations, such as that led by Álvaro Ramazzini, Bishop of San Marcos, help families to survive by providing food donations and help workers to bring cases to local courts, although workers rarely win, and even when they do, legal orders are reportedly rarely enforced. Although the previous Government instituted a "Policy Plan Concerning the Coffee Crisis and the Agrarian Conflict" (2002), and pledged US\$ 100 million to coffee plantation owners, safety net programmes for the workers were not fully implemented.²⁷ Renting or leasing of land was encouraged, but farmers spoke of the semi-feudal nature of leasing agreements, requiring that half the harvest be given back to the landowner.

Land occupations increase as communities desperately search for ways of feeding themselves. Occupations occur mostly when landowners have violated labour rights, or where land ownership is disputed. There are often multiple claims to the same land, following a history of land expropriation by powerful landowners. The Special Rapporteur visited an Ixil indigenous community of 270 families in Antigua Xonka, occupying land they believe was expropriated from them. They issued legal proceedings in a local court but live under constant threat from the landowner who repeatedly sends private police squads to forcibly evict them and burn their crops, animals and makeshift shelters. They always return however, having nowhere else to go. They argue that none of the Ixil lands have been legally regularized or recognized, which allows *finceros* (estate owners) to keep taking more land from them. Although the Peace Accords set out a framework for regularization of indigenous lands and rights, lack of political will has left these issues unresolved.

The response of the Government to increasing land occupations has been forceful. NGOs reported 40 forced evictions in the first six months of 2004, affecting 1,500 families,²⁸ over half of which allegedly involved the use of extrajudicial executions, excessive force and the burning of crops and homes. The Special Rapporteur recognizes the role of the authorities in protecting property, but the use of disproportionate force

that places property rights of large landowners above the right to food and the right to life is of serious concern. As Amnesty International noted:

“A particular characteristic of agrarian disputes in Guatemala is that the full weight of the law and judicial system is often levied in order to enforce evictions, but not to issues relating to labour rights of rural workers or land tenure of rural communities.”²⁹

In urban areas, hunger and malnutrition is closely linked to rural landlessness. Many of the urban hungry live in the *colonias* (legalized slums) or *asentamientos* (illegal slums) on the outskirts of Guatemala's cities. Unemployment levels are high and most people survive in the informal sector, mostly in petty trading. About 40 per cent of people are unemployed, underemployed or employed in non-paying jobs.³⁰ Human rights violations are common with poor working conditions, and wages insufficient to feed a family. Widespread violations of worker's rights are reported in the *maquila* factories that employ mainly young women at very low wages, although some *maquilas* are closing to move to even lower-wage countries. In Guatemala City, the Special Rapporteur visited Bethania, a legalized slum where people were living in overcrowded shacks of tin and plastic, without sanitation, and where doctors in the local health centre estimated that at least 20 per cent of the children were suffering from malnourishment and more from diarrhoea, skin and fungal diseases. Many think that the high rates of criminality, violence and murder in Guatemala City are closely linked to extreme poverty and social exclusion. With few employment opportunities, young people join gangs involved in narcotics trafficking and terrorizing of the settlements, and even the bravest health workers can only work for a few hours a day in the morning when gangs are not present.

Access to water is problematic in urban areas, especially in illegal slums, but particularly in rural areas. Over 65 per cent of the rural population lack access to an improved source of fresh water, or sanitation. Municipalities are responsible for water, but only 4 per cent of the 331 municipalities treat the water they provide.³¹ Access to water is also highly unequal - according to NGOs, if gold mining is established in San Marcos, it would require 70,000 litres of water per hour for processing, which would reduce the river and springs on which many local residents depend. Risks of water contamination from open-pit cyanide leaching are also extremely high, particularly in the absence of a sound regulatory framework for water policy.

B. A history of social conflict

Guatemala's long history of economic inequality, exclusion of indigenous peoples and social conflict, largely explain the country's hunger and food insecurity today.

Inequities in the land regime

Guatemala has one of the most unequal land distributions in the world, given a long history of land expropriation from indigenous people.³² Land expropriation started with the Spanish Conquest, but accelerated in the 1800s with the growth of coffee production. At that time, *ejidos* (communally-held indigenous lands) were nationalized or privatized into individual holdings, with the aim of consolidating the land into large *fincas* for commercialized coffee production. As the best coffee is cultivated at altitudes of between 800-1,500 m, many indigenous people were forced to relocate to steeper, less fertile ground for subsistence farming.³³ Lowlands were also expropriated for the growing of fruit - in the 1940s, the American-owned United Fruit Company owned 42 per cent of Guatemala's land. The pattern of land concentration was briefly interrupted in 1944 during the governments of Juan José Arévalo and Colonel Jacobo Arbenz Guzman, but a military coup in 1954 ended land redistribution and land was consolidated even further. Land concentration and growing landlessness contributed to Guatemala's ensuing 36-year civil war (see below), yet the war exacerbated the situation as the military and landowners forcibly controlled more land. Today, land remains highly concentrated, and many historical claims of indigenous communities and even claims of refugees and people displaced by the conflict are still not resolved.

Lack of labour rights

During the 1800s, forced labour of indigenous peoples supported the growth of the coffee plantations.³⁴ Land policies were deliberately designed to create cheap labour forces by reducing the land available for indigenous people's own subsistence activities.³⁵ Under the *Mandamiento* forced labour system for example, indigenous villages were forced to provide work crews of 60 people for 15 to 30 days to coffee plantations, and to provide free labour to build roads. Forced labour laws remained in place until the mid-twentieth century, with modern labour rights only established in the 1980s, although still not always enforced. The semi-feudal *colono* system persists in many regions today. Today, almost 70 per cent of employment is outside the formal sector and legal protection and workers faced limits on unionization. The statutory legal minimum wage is set so low that it does not cover the cost of a minimum food basket.

Discrimination against indigenous peoples

Racial discrimination between the indigenous and *ladino* (of mostly mixed Maya-Spanish ancestry) populations persists in Guatemala. Although many of the legal institutions have been overturned, de facto discrimination persists, reinforcing discrimination in employment and ownership of resources, a key cause of concentration of hunger and malnutrition amongst indigenous peoples. The Peace Accords focused on fighting discrimination and recognizing the rights of indigenous peoples. However many organizations report that these are the least accomplished parts of the Accords.³⁶ The Special Rapporteur was shocked to see that even today many restaurants and bars will not serve people wearing indigenous dress. He was honoured to meet the well-known indigenous leader, Rigoberta Menchu who has remarkably brought, and won, Guatemala's first case on racial discrimination, which is a sign of progress.

Armed conflict

Guatemala's terrible 36-year conflict (1960-1996) erupted into a full-scale civil war in the 1980s, largely as a result of the social conflict generated by extreme inequality and social exclusion. Indigenous peoples and rural peasants became the targets of a repressive counterinsurgency effort by the military that "reached genocidal proportions in the early 1980s, executing scorched earth warfare tactics, mandatory paramilitary civilian self-defence patrols (PACs), forced resettlement camps, and the militarization of the entire administrative apparatus of the country".³⁷ During the conflict, more than 200,000 women, men and children were brutally killed or "disappeared" and a million people were displaced from their homes and lands. Over 600 villages were completely destroyed and most of their residents massacred.³⁸

The 1996 Peace Accords: framework for a more equitable future

With the Peace Accords that formally ended the war in 1996, a central aim was reverse historical exclusion, discrimination and inequality. The 13 Accords provided a framework for deep political, economic, social and cultural change.³⁹ The "Accord on Socio-economic Issues and the Agrarian Situation", laid out plans to increase social spending, improve access to education, health, public services, and land, to establish mechanisms to resolve agrarian conflicts and develop a rural development policy. These measures were to be financed by important tax reforms to raise government revenues from 8 to 12 per cent of GDP. The "Accord on the Identity and Rights of Indigenous Peoples" proposed the recognition of Guatemala as a multi-ethnic, multicultural and multilingual nation, and identified specific measures for overcoming historical exclusion and exploitation, including measures on land rights, the regularization of land tenure of indigenous communities, the restitution of expropriated communal land and legal protection of the rights of indigenous peoples. However, the rejection of constitutional reforms in a referendum in 1999 slowed progress in turning these political commitments into reality, and the lack of political will has left many of the broader issues unresolved. According to MINUGUA, progress on the fulfillment of the Peace Accords has been slow, partial and insufficient, and has faced much resistance from powerful groups.

Notes

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- 2** Banco Mundial, *Guatemala: La pobreza en Guatemala* informe de la Dependencia de Reducción de la Pobreza y Gestión Económica, febrero de 2003, pág. 83.
- 3** Naciones Unidas, 2003, *Situación de la seguridad alimentaria y nutricional de Guatemala*, documento preparado por el sistema de las Naciones Unidas, Grupo de Seguridad Alimentaria y Nutricional, Guatemala, septiembre de 2003, pág. iii.
- 4** Gobierno de Guatemala, *Política Nacional de Seguridad Alimentaria y Nutricional*, 2004, pág. 8.
- 5** Mesoamerica Famine Early Warning System (MFEWS), *Special Report, MFEWS Food Security Overview* diciembre de 2004, componente de Guatemala, pág. 13.
- 6** Naciones Unidas, *Situación de la Seguridad Alimentaria y Nutricional de Guatemala*, documento preparado por el sistema de las Naciones Unidas, Grupo de Seguridad Alimentaria y Nutricional, Guatemala, septiembre de 2003, pág. iii.
- 7** INE, 2003.
- 8** Naciones Unidas, 2003, pág. 14.
- 9** Naciones Unidas, 2003, pág. 13.
- 10** FIAN, 2004, *The Human Right to Food in Guatemala*, documento redactado por A. Wiese y M. Wolpold-Bosien, octubre de 2004, FIAN International Report, Alemania.
- 11** "Campesinos realizan ma
- 12** Naciones Unidas, Evaluación común para los países (ECP), pág. 17.
- 13** MFEWS, 2004.
- 14** MFEWS, 2004.
- 15** Entre noviembre de 2003 y diciembre de 2004. MFEWS, pág. 17.
- 16** Banco Mundial, 2003, pág. 8.
- 17** Naciones Unidas, 2003, pág. 16.
- 18** En Guatemala, el umbral de la pobreza se define en relación con el consumo de alimentos: el umbral de la extrema pobreza se basa en el coste anual de una "cesta de alimentos" (los requisitos calóricos mínimos de 2.172 kcal por persona y por día), y el umbral de la pobreza se define como la cesta de alimentos más una asignación para artículos de otro tipo.
- 19** Banco Mundial, pág. 49.
- 20** Naciones Unidas, ECP, pág. 16.
- 21** Naciones Unidas, ECP, pág. 14. siva protesta fúnebre", en *El Periódico*, 27 de enero de 2005; www.elperiodico.com.gt.
- 22** Naciones Unidas, ECP, pág. 16.
- 23** Banco Mundial, pág. 52.
- 24** FIAN, pág. 6.
- 25** Misión de Verificación de las Naciones Unidas en Guatemala (MINUGUA), citado en FIAN, pág. 9.
- 26** E/CN.4/2005/72/Add.3.
- 27** Banco Mundial, 2003, Programa de Evaluación de la Pobreza en Guatemala (GUAPA), Documento técnico N° 1: *Guatemala: Livelihoods, Labour Markets, and Rural Poverty*, de Renos Vakis, 2 de diciembre de 2003.
- 28** Colectivo de Organizaciones Sociales (COS), Balance de la Paz 2004, *Otra Guatemala es posible: Acuerdos de Paz, unidad y lucha de las organizaciones sociales*, Guatemala, 2004.
- 29** Amnistía Internacional, Memorandum al Gobierno de Guatemala: Preocupaciones de Amnistía Internacional con respecto a la situación actual de derechos humanos, AMR 34/014/2005.
- 30** Naciones Unidas, ECP, pág. 15.
- 31** Gobierno de Guatemala, Política Nacional de Seguridad Alimentaria y Nutricional, 2004, pág. 11.
- 32** Banco Mundial, 2003, pág. 30.
- 33** Banco Mundial, Programa GUAPA, Documento técnico N° 1: *Guatemala: Livelihoods, Labour Markets, and Rural Poverty*, de Renos Vakis, 2 de diciembre de 2003.
- 34** Banco Mundial, 2003, pág. 33.
- 35** Banco Mundial, 2003, pág. 33.
- 36** FIAN, pág. 7.
- 37** Banco Mundial, pág. 36.
- 38** Banco Mundial, pág. 36.
- 39** MINUGUA.

Annex N: MYAP Recommendations

The following recommendations were prepared to help orient participating PVOs in the project design process for their applications to the next phase of the Title II program in Guatemala. They were presented in Spanish in the March 8th workshop on preliminary findings, and as Section 8 of the draft report. Since they are not directly relevant to the evaluation, they have been placed in this annex.

The recommendations are grouped in four categories: strategic positioning, better funding, increased impact, and an integrated vision for a new style of food security project.

8.1 Strategic Positioning (these respond directly to FFP criteria)

Target worst-case areas: very high food insecurity and/or vulnerability. Provide data to document this.

Build in flexibility and capacity to respond to emergencies and evolving food security conditions.

- Highlight experience of Guatemala DAPs in adjusting to Hurricane Stan
- Include community and municipal risk management (training, plans, mitigation projects, disaster preparation).
- Describe how fast and slow change will be monitored (EWS, trigger points, etc.)
- Be able to move funds to new priorities. Obligate funding to partners on rolling one-year horizon, avoiding inflexible long-term commitments.

Build sustainability.

- Develop exit strategies that will graduate communities, municipalities, and the food aid program. Graduation does not mean severing all ties. PVOs can set up community self-monitoring processes and visit quarterly to assess progress and problems.
- Establish post-project support and monitoring networks.
- Establish strategic overview: how coverage and interventions will reduce food insecurity at national, regional, and municipal levels.
- Use food as short-term catalyst, not long-term gift. Roll MCH/N food resources over into new communities after 2-4 years.
- Improve quality of organization, participation, empowerment at all levels.

Structure GDA-style public-private sector partnerships to increase resources, involve more players, and support sustainability.

Support USAID / Guatemala SOs even better.

- Contact mission programs to jointly design interventions, mutual support.
- Arrange supplementary funding, other inputs, shared interventions, etc.

Cooperate more closely with other CSs.

- Consolidate geographic areas to reduce expense (example of Save the Children), or make clear why overlap in target areas makes sense.
- Establish common indicators, following the model developed in MCH/N.
- Exchange lessons and best practices via quarterly meetings by intervention area.
- Move toward unification of technical approaches (begun in MCH/N).
- Collaborate on improving monetization.

Expand knowledge of what works and why, use results to improve.

- Track fates of graduated communities. Determine whether they are sustaining key food security activities
- Analyze impact of interventions. For example, does training to improve hygiene behavior result in lower diarrhea prevalence and better growth rates? What is the result of breast feeding on infant growth? Does family participation in income generation, goat milk, or home garden activities improve the growth rates of children? Do differences in chronic malnutrition appear between 3 year old children from households that have changed behaviors to a greater or lesser extent, when following height for age from birth? Etc.
- Use case studies to establish critical impacts (more depth, better accuracy, less cost)
- Share best practices, lessons learned. <add a sentence to expand this>

Use food aid-supported activities to build capacity and reduce vulnerability, not merely as ends in themselves, even in emergencies.

Use self-replicating methods to expand coverage spontaneously. [Self-replicating means that participants teach neighbors (e.g., farmer-to-farmer extension, new mothers trained by community health committee), participating COCODES train others, etc.]

- Train participants to be able to train others; initiate participant-to-participant training during interventions.
- Commit groups (MCH/N, Agric/Income, COCODES) to teach others as partial compensation for benefits.

8.2 Better Funding

Improve monetization.

- Build business capacity of monetization consortium
- Move toward competitive bidding for monetized commodities.
- Consider new products for monetization.
- Consider building capacity of small entrepreneurs to compete for purchase and distribution of monetized commodities.
- Bringing in outside expertise (external or in-house).

Increase counterpart contributions, complementary funding, and sustainability.

- Get commitments for participation, counterpart efforts, complementary funding, and post-project maintenance of key activities from communities, municipalities, and project groups through competitive processes to access MYAP resources.

8.3 Increase Impact in Field (more bang per buck). See also Section 7

Strengthen community and municipal organization, participation, and empowerment.

- Strengthen COCODES and COMUDE by working through them, involving them in intervention design, monitoring, and evaluation.

Improve level of exclusive breastfeeding during first six months to improve growth of infants.

Reduce migration. The best mechanism is irrigation.

Forge partnerships that increase coverage of irrigation and other agriculture/income interventions.

Emphasize empowerment over dependence. Take all opportunities to build self reliance, initiative.

- Participating communities, interest groups, and municipalities compete for projects (MCH/N, agriculture/income, infrastructure, etc.)
- Show how to fish; do not give fish away (metaphorically speaking), e.g. use marketing plans, technical solutions, resolution to conflicts, access to food security, etc. as learning opportunities

Broaden impact through use of self-replicating learning processes.

8.4 Integrated Vision for a new style of food security project.

Use competitive processes to increase commitment, local counterpart contributions, and sustainability.

- Design project so that communities within each municipality make competitive applications to access food aid, MCH/N benefits (municipalities should compete too, if feasible). Make conditions offered an important part of selection criteria.
- Provide promotion and technical guidance for proposal development. Work through COCODES and COMUDE where possible.
- Graduate winning communities within 2-4 years (average 3?). Move food aid, technical interventions to new communities. Develop follow-up, monitoring schemes.
- Run competition for new communities yearly, using resources reserved and those from communities that graduate.
- Make access to agric/income and infrastructure projects competitive among communities within a municipality.

Promote an integrated vision of local development (food security, health, education, and economic development, rather than infrastructure).

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Annex I: Illustrative Guide for the preparation of the summary evaluation report
Annex II: PL 480 Title II Program Documents
Annex II: Timetable