Eco-Community Indicators in El Salvador: Participatory Methods for Monitoring Progress

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Executive Summary

The George Washington University Capstone team composed of Ashley Armstrong, Nivedita Bhushan and Felicia Rodriguez partnered with Winrock International (Winrock) as a part of the USAID-sponsored Farmer-to-Farmer program. The assignment was to work with the Foundation for Socioeconomic Development and Environmental Restoration (FUNDESYRAM), a local non-profit organization that provides technical assistance and capacity strengthening for rural and peri-urban communities in El Salvador. The team provided FUNDESYRAM with a set of revised indicators for their Eco-Communities program, as well as basic technical assistance in monitoring and evaluation.

This report is a synthesis of the team's research and fieldwork. The team completed the assignment over a six-month period from November 2012 to May 2013. During this time, the team conducted desk research and interviews with Winrock staff, collected data from program beneficiaries in the regions of Tacuba and San Pedro Puxtla, El Salvador and led a meeting with FUNDESYRAM staff to present the results framework created and the preliminary draft indicators. These indicators will assist both FUNDESYRAM and the communities in monitoring their level of progress in achieving their objectives and will allow for learning.

In order for FUNDESYRAM to make the best use of these products, it is recommended that staff, especially technicians working directly with community leaders, receive additional training in monitoring and evaluation (M&E). It is also recommended that FUNDESYRAM conduct a baseline study in partnership with local communities as the first step following finalization of the set of indicators. This baseline should serve as an instrument for setting clear and realistic targets. Finally, it is highly recommended that as a part of the program design, staff and community leaders complete a performance monitoring plan in order to collect data efficiently and effectively track progress.

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Background Information

El Salvador

El Salvador is a lower middle-income country in Central America that borders the Pacific Ocean and is located between Guatemala and Honduras. It is the smallest country in Central America and the only one without a coastline on the Caribbean Sea. El Salvador's Human Development Index (HDI) is 0.680, which gives the country a rank of 107 out of 187 countries with comparable data. The country therefore places below the regional average of 0.741 for Latin America and the Caribbean.[1] El Salvador's score on the HDI is significant because the score is a composite measure of health, education, and income and indicates that the country needs to improve in all of these areas to improve the population's well-being.

One program trying to improve well-being in El Salvador is the USAID funded Farmer-to-Farmer (F2F) program. This program provides voluntary technical assistance to farmers, farm groups, and agribusinesses in developing and transitional countries to promote sustainable improvements in food security and agricultural processing, production, and marketing.[2] Winrock International (Winrock) is a nongovernmental organization (NGO) and implementing agency of the F2F program. Winrock works with people in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources.[3] Through the F2F program, Winrock matched our team with a local partner organization that we would provide assistance to as volunteers.

FUNDESYRAM

The Foundation for Socioeconomic Development and Environmental Restoration (FUNDESYRAM) is a local partner organization of Winrock International in El Salvador. FUNDESYRAM is a non-profit organization established to support improvements in the lives of rural and urban communities in a comprehensive and participatory manner

[1] United Nations Development Programme, http://hdrstats.undp.org/en/countries/profiles/SLV.html.
[2] United States Agency for International Development, http://transition.usaid.gov/our_work/agriculture/farmer_to_farmer.htm.
[3] Winrock International, http://www.winrock.org/about_us.asp.

through operating agricultural, social, economic, educational, and environmental restoration projects, with a gender focus. For many years, their technicians have been promoting organic agriculture in the micro-regions of San Pedro Puxtla, Tacuba, and Comasagua in El Salvador.

FUNDESYRAM facilitates local communities' organized participation in management and implementation of development programs, where leaders and trained leaders play a major role in ensuring environmental protection, promoting gender equity and proposing alternatives to combat poverty and develop measures to mitigate food insecurity. Organization, solidarity, gender equity, capacity building, environmental awareness and self, are the values promoted to ensure sustainability of the processes.

Eco-Community Concept

FUNDESYRAM is currently working with several rural and urban communities in Tacuba, San Pedro Puxtla and Comasagua. They are focusing on environmental issues, agricultural production, and entrepreneurship, as well as strengthening organizational capacities, to achieve "eco-communities." The overall goal of the eco-community concept is to advance human development and enhance environmental sustainability by uniting and empowering local communities. Eco-communities consist of three components: community organization, socioeconomic development, and the environment. While these are the three main pillars, it's important to note that the inclusion of women and youth is also integrated throughout each component.

Objective and Scope of Assignment

The objective of the assignment with FUNDESYRAM was to use participatory methods to create a set of indicators that communities can use to monitor their own progress under the eco-community concept. The goal of identifying key indicators that communities can measure themselves is an important step towards improving food security and developing sustainable practices. To accomplish this, the team first visited the communities that FUNDESYRAM works with, to understand their conditions and situation. Next, they reviewed FUNDESYRAM's existing indicators and proposed changes to better monitor the communities' situations based on research and fieldwork. Lastly, they presented recommendations on setting and measuring appropriate indicators to the FUNDESYRAM technicians.

The Eco-Community program cannot depend on external evaluators, so the main focus was to develop a set of indicators that local communities can monitor themselves. Implementing such a monitoring system will allow FUNDESYRAM to assess organizational, socioeconomic development, and environmental changes under the eco-community concept. Objective and easy to measure indicators are necessary for communities to know how they are progressing and also for FUNDESYRAM to obtain information, so that they may better focus their work in these communities.

Methodology

In November 2012, the team began conducting background research and preparing for interviews with key Winrock staff. Beginning January of 2013, the team conducted interviews and developed a thorough fieldwork methodology. During a two week field visit in March 2013, the team travelled to local communities in the regions of Tacuba and San Pedro Puxtla for ten days. A map depicting the regions visited can be found in Appendix A. The team collected information from participants through semi-structured interviews, focus groups, site visits, and farm maps.

Desk Review

The team first conducted background research to become familiar with agriculture, rural livelihoods, and environmental issues in El Salvador and Latin America at large. In addition to reviewing literature, white papers, and other reports, the team had the opportunity to interview key Winrock staff. Their experience working on the Farmer-to-Farmer program, in El Salvador, and with other agricultural and environmental projects worldwide provided valuable best practices and lessons learned. In order to provide further specificity to the research process, the team combined knowledge gained, with FUNDESYRAM's eco-community concept description, to define major themes and exploratory objectives. These themes and objectives were the conceptual foundation for the team's fieldwork tools and the eventual indicator set.

Fieldwork Tools

The purpose of the team's fieldwork was to understand the conditions, context, and environment of the communities and individuals working with FUNDESYRAM. Semi-structured interviews, focus groups, and transects/farm mapping aimed to explore the opinions and attitudes of FUNDESYRAM constituents in relation to community organization, socioeconomic development, and the environment. The team hoped that these participatory methods would allow for open discussion regarding motivations, concerns, and experiences over time.

In order to achieve reliability and validity of the data collected, the same sets of semi-structured questions for each data collection tool were asked to participants across communities and regions. However, as the team's fieldwork aimed to be participatory, new questions derived from conversations with project beneficiaries were incorporated during the course of work in El Salvador.

1. Focus Groups

Focus groups were the primary method for gathering information in the field. The purpose of focus groups was to provide a community-level perspective for farmers and a group-level perspective for FUNDESYRAM staff. Initially, focus groups were divided by gender with the intention of comparing male and female perceptions. However, as the team wasn't able to control focus group participation, many of the focus groups were mixed gender. Discussion was structured around community and individual activities, farming/business inputs and outputs, productivity, organic agriculture, recordkeeping, environmental impacts, family responsibilities, and relationships with local governments. More detailed information about focus groups and questions can be found in Appendix B.

2. Semi-Structured Interviews

To supplement focus groups, the team also conducted one-on-one semi-structured interviews. The purpose of the semi-structured interviews was to get a more individual, in-depth perspective from each participant. As the team had more flexibility choosing whom to speak with on an individual basis, this allowed for more diversity in gender, occupation, and involvement with FUNDESYRAM activities. Similar to focus groups, semi-structured interview discussion was structured around livelihoods, community engagement, and environmental changes with more personal reflection. More detailed information about semi-structured interviews and questions can be found in Appendix B.

3. Transects/Farm Mapping

To further supplement both focus groups and semi-structured interviews, the team planned to conduct a transect walk with farmers in each of the regions. A transect walk is a walk taken by participants and facilitators through the area of interest. As farmers and

facilitators walk through the village/farm-scape they can observe and discuss the relationship with both the natural and built aspects of the environment. This activity provides understanding and an opportunity to ask about land use, water management, resource constraints, livestock, structure functionality, and environmental issues. However, many of the farms we visited were too small to conduct a thorough transect walk and farm mapping was utilized as an alternative activity. More detailed information about transects and farm mapping can be found in Appendix B.

Limitations

1. Sample Selection

Though the team put in a request to have separate focus groups with women, men, and youth – such group differentiation was not always possible in the field. This also compromised the team's ability to select specific activities (semi-structured interviews, focus groups, etc.) for each community visited. Though the team was able to interview groups of women and youth, groups of male farmers or business owners were not available.

2. Bias

As FUNDESYRAM selected the communities and participants, a potential for selection bias exists. For example, selected participants may have been more engaged and successful in the community and FUNDESYRAM's pilot projects. In addition, the primary method of data collection was focus groups, and some participants were more involved than others and there might have been internal pressure to vocalize or not vocalize certain opinions.

Indicators

Criteria

The principal goal of this assignment was to revise the current set of performance indicators for the Eco-Communities program and to develop new indicators as appropriate. These indicators will assist both FUNDESYRAM and the communities in monitoring their level of progress in achieving their objectives and will allow for learning. Existing indicators and newly developed indicators were designed and evaluated using the following criteria:

- Monitor progress of current activities
- Directly linked to inputs, processes, results
- Easy to measure
- Attributable to the project / program
- Work within existing data collection capacity
- Cost-effective
- Unambiguous and direct
- Objective
- Linked to decision-making or lessons learned

The final set of indicators was created based on the assumption that the beneficiaries of the eco-community program would be the primary intended users. Recognizing that communities have limited resources and technical expertise, special attention was placed on ensuring that the indicators are easy to measure and cost-effective. As a part of effective programming, our team expects that these indicators will be revised and updated as necessary as program activities or objectives change, or if a more appropriate measure of outcomes becomes apparent.

In order to directly link performance indicators to processes, inputs and results, the GWU team developed a results framework based off of the documentation and interviews with FUNDESYRAM leadership, technicians, and beneficiaries. Indicators are meant to monitor to what extent each result (outcome) is achieved. The full results framework can be found in Appendix G. The framework should also be revised as necessary and appropriate.

Strategies for Effective Use of Performance Measures

Below are some suggested strategies for effective use of performance measures. Furthermore, Appendix F contains a performance monitoring plan (PMP) template to assist users in the development and process of monitoring the eco-community program.

- Performance indicators are most appropriate for planning and monitoring, not for evaluation. Evaluation goes deeper into understanding what within the intervention is working and why indicators may be moving in one direction or another.
- Indicators have limitations to the amount of information that they can provide. A combination of evaluative methods is necessary to inform learning.
- Indicators should take stock of the political and organizational context and must be realistic. The logic model can help identify what outcomes can be expected realistically.
- Test indicators in advance if possible.
- Review and update as necessary and appropriate.
- Involve all stakeholders in developing and reviewing measures and actively involve those stakeholders in interpreting the findings and lessons learned.
- Indicators must examine a number of program aspects, including the process as well as outputs and outcomes.

Adapted from: Burt Perrin's "Effective Use and Misuse of Performance Measurement." 1998.

Recommendations

FUNDESYRAM

The Capstone team has provided FUNDESYRAM with a results framework and a list of indicators that they and the communities they work with can use to monitor progress within the Eco-Communities program. These deliverables will be useful as a platform for review and as a first step in promoting and supporting the eco-community concept. They will allow FUNDESYRAM to adjust program implementation as results begin to develop, and it is also expected that this work will increase community buy-in to the program.

In order for the results framework and indicators to be useful, and for the eco-community concept to succeed, the team has a few recommendations for FUNDESYRAM. The first recommendation is to train staff in monitoring and evaluation. Monitoring and evaluation provides the information needed to make evidence-based decisions that will allow for future program improvement. These skills also ensure the collection of good-quality data that is necessary for reporting results and soliciting funding.

The second recommendation is that FUNDESYRAM conduct a baseline study in partnership with local communities as the first step following finalization of the set of indicators. The baseline survey is essential to gather information before a project has begun, so that decisions can later be made based on the results of development activities. It provides the basis for future assessments and demonstrates the impact or effectiveness of the program. After conducting a baseline survey, FUNDESYRAM can then identify clear and measureable targets for each indicator.

The last recommendation is for FUNDESYRAM to create a performance monitoring plan in order to plan, manage, and document the collection of performance data. PMPs assure that comparable data will be collected on a regular and timely basis.

Winrock International and the Farmer-to-Farmer Program

The Capstone team has learned a great deal throughout the course of this assignment and their experience conducting fieldwork in El Salvador has proved to be invaluable. The only recommendation for Winrock International and the Farmer-to-Farmer program moving forward is to provide technical training for the FUNDESYRAM staff. The team had the privilege to spend time with these dedicated staff members and speak with the many individuals in surrounding communities whose lives have been touched by their work. It is believed that FUNDESYRAM could have an even greater impact if staff received training in technical and project implementation activities such as, conducting baseline studies and monitoring and evaluation.

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Appendix A: Map of Regions Visited

Source: http://geology.com/world/el-salvador-satellite-image.shtml.

Appendix B: Fieldwork Tools

FUNDESYRAM Focus Group and Semi-Structured Interview Questions

Overview

Purpose:

- To understand the conditions and situation of communities that FUNDESYRAM is working with. To do this we will explore existing practices and activities, as well as constraints to farming.

Methodology:

- Hold a focus group with FUNDESYRAM staff that will last no longer than 2 hours.
- One person will lead discussion, one will assist, and one will take notes. We will use a template form for recording information.
- Our team will meet in the evenings to review and organize the information we have gathered.
- Group will consist of staff members available.

Materials:

- Beverages and snacks.

Welcome and Introduction:

Hello and thank you for taking the time to speak with us today - we appreciate your willingness to participate in this focus group. (Introduce Capstone Team – moderators and note taker)

We are a group of students from George Washington University in Washington, D.C., and are here working with Winrock International in order to learn about the conditions and situation of the communities you work with. The goal of this focus group is to understand the work you do, the eco-community concept, and current indicators.

We value your input and invite you to share your honest and open thoughts with us. There are no right or wrong answers to any of these questions. Every person's experiences are

different and important, and we look forward to hearing a wide range of opinions on the topics we'll discuss today.

Although we will audiotape this discussion, your identity will never be revealed, or connected in any way to your comments. While we may report quotes collected during this interview, at no time will we connect those comments with any individual. You are free to stop participating or withdraw at any time.

Icebreaker:

TBD

Closing:

Thank you for your time today and we really appreciate your participation in this focus group. Does anyone have any questions for us or anything else they would like to share?

<u>Questions for Focus Group with FUNDESYRAM Staff</u>

1. What are FUNDESYRAM's goals?
2. What services does FUNDESYRAM provide to local farmers?
    a. Activities
    b. Inputs
    c. Marketing (domestic, international)
    d. Networking
3. How did the eco-community concept originate and how has it evolved? (How have the goals and services worked towards the eco-community concept?)
4. Does the eco-community concept adhere to any written principles / methodologies or other guiding frameworks?
5. What words would you use to characterize the concept?
6. Overall, how would you describe your current relationship with beneficiaries (farmers and cooperatives)?
    a. How often does FUNDESYRAM engage with farmers and cooperatives?
    b. How do you make sure that everyone is equally included in your work including women and youth?

7. How did you develop indicators for the eco-community concept?
8. Have you collected any data on these indicators so far?
    a. How did you go about it?
    b. Have you or anyone else ever collected any baseline information?
    c. What were some of your means of verification?
    d. What were some of the challenges you faced?
    e. What would you have done differently?

Questions for Semi-Structured Interviews with FUNDESYRAM Staff

1. In your own words, how would you describe FUNDESYRAM's vision and goals?
2. What is your role in the organization? What are your responsibilities?
3. Have your activities changed since you started working here? How?
4. What are the primary characteristics of the communities you work with and how do you go about selecting them?
5. What are some of their major obstacles?
6. How often do you interact with these communities?
7. How did the eco-community concept originate and how has it evolved?
8. What processes have you used to develop indicators for the eco-community concept?
9. How do you currently measure the impact of your activities?

Community Focus Group and Semi-Structured Interview Questions

Overview

Purpose:

- To understand the conditions and situation of communities that FUNDESYRAM is working with. To do this we will explore existing practices and activities, as well as constraints to farming.

Methodology:

- Hold 2 focus groups each day that will last no longer than 2 hours each.
- Meet with a sample of about X farmers that FUNDESYRAM is currently working with over a period of X days.

- One person will lead discussion, one will assist, and one will take notes. We will use a template form for recording information.
- Our team will meet in the evenings to review and organize the information we have gathered.
- Groups will consist of all men, all women, and both men and women together.

Materials:

- Beverages and snacks.

Welcome and Introduction:

Hello and thank you for taking the time to speak with us today - we appreciate your willingness to participate in this focus group.

(Introduce Capstone Team – moderators and note taker)

We are a group of students from George Washington University in Washington, D.C., and are here working with Winrock International in order to learn about your farming activities. The goal of this focus group is to understand the work you do on your farm, including techniques and constraints to farming.

We value your input and invite you to share your honest and open thoughts with us. There are no right or wrong answers to any of these questions. Every person's experiences are different and important, and we look forward to hearing a wide range of opinions on the topics we'll discuss today.

Although we will audiotape this discussion, your identity will never be revealed, or connected in any way to your comments. While we may report quotes collected during this interview, at no time will we connect those comments with any individual. You are free to stop participating or withdraw at any time.

Icebreaker:

TBD

Closing:

Thank you for your time today and we really appreciate your participation in this focus group. Does anyone have any questions for us or anything else they would like to share?

Questions for Focus Group with the Community

1. How did you hear about FUNDESYRAM?
2. How long have you been working with them?
3. What do you hope to get out of working with FUNDESYRAM?
4. What services does FUNDESYRAM provide you with?
    a. Activities
    b. Inputs
    c. Marketing (domestic, international)
    d. Networking
5. Can you tell me in your own words what an eco-community is?
6. What do you think of organic farming?

a. How did you first hear about organic farming?

b. Do you practice organic farming? If not, why not?

c. For those that do, have you seen any improvement in the environment? In productivity? In incomes?

7. What are some of the trainings you have received? (From whom / where?)
8. What other technologies or practices are you using on your farm (water harvesting / use, soil conservation, agroforestry, pest/ disease mgmt., post-harvest technologies)?
9. What are some of the biggest challenges you are facing?
10. How do you keep records of what is happening on your farm?
11. What has increased and decreased productivity?
12. How do you choose what to eat / keep and what to sell?
13. What actions do you do to protect the environment?

Questions for Semi-Structured Interviews with Farmers

1. How long have you lived in this community?
2. Can you describe your farm? (What do you grow? How much land do you have? Do you rent/ own the land?)
3. What kind of inputs do you currently use to help you grow your crops? (Are these organic? Where do you get them from?)
4. How do you know when your farm is doing well?
5. Have you seen an increase in your crop production over the past year or since you started using new techniques?
    a. If no, why not?
    b. If yes, how did you measure it?
6. What sources of income are there in your household? Is farming the most important income generating activity?
7. Has your income increased over the past year or since you started using new techniques?
    a. If yes, how do you measure your income? (Weekly, monthly)
8. How did you hear about FUNDESYRAM?
9. Can you tell me about your experiences with FUNDESYRAM?
10. Have you participated in any FUNDESYRAM trainings? Have they helped you?

Transect/Farm Mapping Structure and Questions

Purpose

A transect walk is a walk taken by participants and facilitators through the area of interest. Transects are an ideal starting point as they establish the farmers as the experts on living conditions of that area. As farmers and facilitators walk through the village-scape they can observe and discuss the relationship with both the natural and built aspects of the environment. This will provide understanding and an opportunity to ask about land use, water management, resource constraints, livestock, structure functionality, and environmental issues.

Requirements and Materials

-1-2 hours

-Key informants (both genders)

-Facilitators

-Paper and writing utensils for note taking

-Possible recording device

-Possible device to measure distance

Questions

Land Use

1. How much land do you cultivate?
2. What are your "farming techniques" that you utilize in relation to land use?
3. Have you tried any new farming techniques within the past few years?
    a. If yes, what?
4. Why were changes implemented?

Water Management

1. Where do you get your water?
2. How much water do you use? For what purpose?
3. Has it changed over time?
4. Are you using any types of water management techniques?

Resource Constraints

1. What energy/fuel sources do you use in your household?
    a. Do you have difficulty obtaining fuel sources?
2. Have you received any technical assistance and from whom?
3. What kinds of constraints to farming are you currently facing?
    a. Weather shock
    b. Inputs
    c. Outputs

4. Did you sell any of what you produced?
    a. How much?
    b. When?
5. Where do you sell crops?
6. What are your farming inputs?
7. Where do they come from?
8. How much do you use per year?
9. How much does each cost?
10. What has increased and decreased productivity?
11. What has increased and decreased income?

Livestock

1. What do you use your livestock for?

Structure Functionality

1. What are the different buildings and structures on your farm?
2. How do you use them?

Environmental Issues

1. Are you familiar with the concept of climate change?
2. What climate change effects are being felt in your farming?
    a. How do you address that?
3. What are the management practices in place to deal with climate change?
4. Do you have an action plan?

Appendix C: Participatory Farm Maps

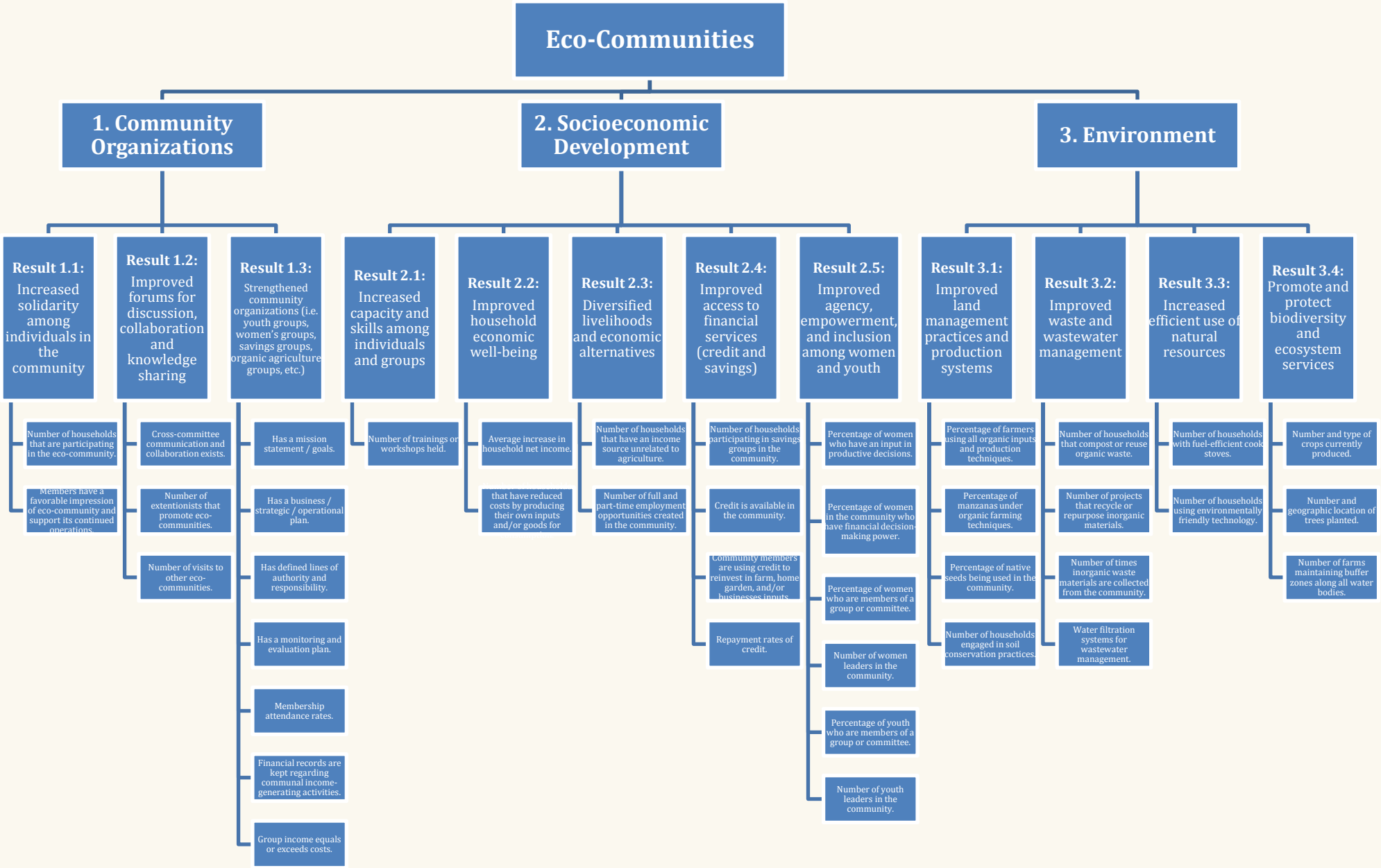
Carmen, San Pedro Puxtla

El Durazno, San Pedro Puxtla

Appendix D: Interview Log

Date	Activity	Region	Community	Number of Participants
Monday March 4, 2013	SS Interview	San Pedro Puxtla	FUNDESYRAM Office	1
	SS Interview	San Pedro Puxtla	Santo Domingo de Guzman	1
	SS Interview	San Pedro Puxtla	El Carrizal	1
Tuesday March 5, 2013	SS Interviews	San Pedro Puxtla	FUNDESYRAM Office	1
	SS Interviews	San Pedro Puxtla	Carmen	1
	SS Interviews	San Pedro Puxtla	Carmen	1
	Focus Group	San Pedro Puxtla	Rosaria Arriba	5
Wednesday March 6, 2013	Focus Group	San Pedro Puxtla	El Durazno	7
	Site Visit	San Pedro Puxtla	El Durazno	1
	Site Visit	San Pedro Puxtla	El Cortez	1
	Site Visit	San Pedro Puxtla	El Cortez	1
	Focus Group	San Pedro Puxtla	El Cortez	4
	Focus Group	San Pedro Puxtla	El Escalon	9
Thursday March 7, 2013	SS Interview	San Pedro Puxtla	Moro Grande	1
	SS Interview	San Pedro Puxtla	Moro Grande	1
	Focus Group	San Pedro Puxtla	Moro Grande	10
Friday March 8, 2013	Focus Group	San Pedro Puxtla	Moro Grande (FUNDESYRAM Office)	5
	Focus Group	San Pedro Puxtla	Sarsal, El Carizal (FUNDESYRAM OFFICE)	3
Monday March 11, 2013	Focus Group	Tacuba	FUNDESYRAM Office	3
	Focus Group	Tacuba	Lomas de San Antonio	5
Tuesday March 12, 2013	Focus Group	Tacuba	Jacira	10
Wednesday March 13, 2014	Focus Group	Tacuba	San Rafael	20
	Focus Group	Tacuba	El Progresso (Ahuachapan)	21
Thursday March 14, 2013	Focus Group	Tacuba	El Rosario	18
Number of Total Participants				**131**
Number of Semi-structured Interviews				**8**
Number of Focus Groups				**13**
Number of Site Visits				**3**

Appendix E: Complete Results Framework Chart



Appendix F: Preliminary Indicators

Eco-Communities in El Salvador		
Overall Goal: To advance human development and enhance environmental sustainability by uniting and empowering local communities.		
1. Community Organization Goal: To increase the capacity of all community members to participate equally in the management and progress of their communities.		
Indicators	**Definition**	**Means of verification**
Result 1.1: Increased solidarity among individuals in the community		
Number of households that are participating in the eco-community.	Number of households participating in community groups, organic agriculture, training or other services linked to the community.	List of households.
Members have a favorable impression of eco-community and support its continued operations.	Psychometric measurement of attitudes towards and satisfaction with eco-communities.	Psychometric rating scale.
Result 1.2: Improved forums for discussion, collaboration and knowledge sharing		
Cross-committee communication and collaboration exists.	Representative(s) of each committee / group meet and communicate on a quarterly basis.	Meeting existence and attendance sheet.
Number of extentionists that promote eco-communities.	Number of extentionists (people with technical skills and expertise who are involved in knowledge sharing and training other community members) selected by FUNDESYRAM.	Group and community records.
Number of visits to other eco-communities.	Number of visits among eco-communities to observe and share knowledge, information, and best practices.	Meeting records and minutes.
Result 1.3: Strengthened community organizations (i.e. youth groups, women's groups, savings groups, organic agriculture groups, etc.)		
Has a mission statement / goals.	Each group has a clearly defined, understood, and agreed upon mission statement.	Publicly available sign or document.
Has a business / strategic / operational plan.	Each group has a clearly defined business / strategic / operational plan.	Written or oral confirmation.
Has defined lines of authority and responsibility.	Each group has elected authority figures with defined roles and responsibilities.	Written or oral confirmation.

Has a monitoring and evaluation plan.	Each group has a clearly defined plan to monitor their progress and evaluate activities.	Written or oral confirmation.
Membership attendance rates.	Each group records meeting and activity attendance.	Attendance sheets.
Financial records are kept regarding communal income-generating activities.	Each group records net income from activities such as raffles; food sales, crop sales, etc.	Group financial records.
Group income equals or exceeds costs.	Each group's income equals or exceeds the cost of their activities.	Group financial records.
2. Socioeconomic Development Goal: To contribute to the well-being of community members by increasing capacity, decision-making power, and economic security.		
Indicators	**Definition**	**Means of verification**
Result 2.1: Increased capacity and skills among individuals and groups		
Number of trainings or workshops held.	Number of formal and informal trainings held or attended by eco-communities.	Meeting records and minutes.
Result 2.2: Improved household economic well-being		
Average increase in household net income.	Average increase in net income compared to previously recorded period.	Household records. Information can be collected on a quarterly basis (every three months). Baseline data needed.
Number of households that have reduced costs by producing their own inputs and/or goods for consumption.	Number of households who are consuming homegrown vegetables, mixing their own fertilizer, using medicinal herbs, applying natural pesticides, etc.	Household records. Information can be collected on a quarterly basis (every three months). Baseline data needed.
Result 2.3: Diversified livelihoods and economic alternatives		
Number of households that have an income source unrelated to crop production.	Such activities include livestock raising, micro-businesses, etc.	Household records.
Number of full and part-time employment opportunities created in the community.	List of full and part-time employment generated by the community (e.g. farm laborers, construction workers, suppliers, other employees, etc.)	Each household and/or group should report the number of full and part-time employees hired each quarter (every 3 months).
Result 2.4: Improved access to financial services (credit and savings)		
Number of households participating in savings groups in the community.	Savings groups consist of individuals collectively saving, investing, and/or providing loans.	Savings group records.
Credit is available in the community.	Eco-community savings groups who are who provide loans.	Savings group records.
Community members are using credit	Credit is being reinvested and not	Household records.

to reinvest in farm, home garden, and/or businesses inputs.	just used for consumption smoothing.	
Repayment rates of credit.	Percentage of loans repaid in time period defined by lender.	Savings group records.
Result 2.5: Improved agency, empowerment, and inclusion among women and youth		
Percentage of women who participate in productive decisions.	Women in the community who are able to participate and contribute to decisions regarding household production activities.	Written or oral confirmation.
Percentage of women in the community who have financial decision-making power.	Women in the community who have savings, some form of income, and are able to decide how to spend it independent of other influences.	Household records and oral confirmation.
Percentage of women who are members of a group or committee.	Number of women (out of total women in community) who are members of a group, committee, or association.	Group and community records.
Number of women leaders in the community.	Number of women in roles of authority with clearly defined responsibilities in groups, committees, or associations.	Group and community records.
Percentage of youth who are members of a group or committee.	Number of youths (out of total youths in community) who are members of a group, committee, or association.	Group and community records.
Number of youth leaders in the community.	Number of youths in roles of authority with clearly defined responsibilities in groups, committees, or associations.	Group and community records.
3. Environment Goal: To improve environmental quality, protect ecosystem services, and mitigate climate change.		
Indicators	**Definition**	**Means of verification**
Result 3.1: Improved land management practices and production systems		
Percentage of farmers using all organic inputs and production techniques.	Number of farmers in each community using green manures and integrated pest management in comparison to the total number of farmers in the community. Organic production excludes conventional production practices, hybrid seeds, and the use of chemicals.	Group and community records. Information should be collected on a quarterly basis (every 3 months).
Percentage of manzanas under organic farming techniques.	The total amount of agricultural land that is managed using organic inputs (fertilizers, pesticides, crop residues) in a community (One manzana is	Group and community records. Information should be collected on a quarterly basis (every 3 months)

	equivalent to .7 ha or 1.73 acres).	
Percentage of native seeds being used in the community.	Native seeds should be measured against the total amount of seed types (native and non-native) used in the community.	Household, group, and community records.
Number of households engaged in soil conservation practices.	Number of households using soil conservation techniques such as protective covers, erosive agent barriers, conservation tillage, and modifying landscapes to minimize runoff, etc.	Household records.
Result 3.2: Improved waste and wastewater management		
Number of households that compost or reuse organic waste.	Organic waste is separated from inorganic waste and reused for household or farming purposes.	Household records.
Number of projects that recycle or repurpose inorganic materials.	Projects might include collecting inorganic materials to be recycled, build structures, etc.	Group and community records.
Number of times inorganic waste materials are collected from the community.	Inorganic waste that is collected by community groups, local municipalities, or other organizations.	Group and community records.
Number of water filtration systems for wastewater management.	The number of households who are using a water filtration system to reuse wastewater.	Household records.
Result 3.3: Increased efficient use of natural resources		
Number of households with fuel-efficient cook stoves.	Households that have improved cook stoves that use less firewood.	Household records.
Number of households using environmentally friendly technology.	Households using improved technology such as solar lamps, water power, biodigesters, wind power, etc.	Household, group, and community records.
Result 3.4: Promote and protect biodiversity and ecosystem services		
Types of crops currently produced.	List of crop varieties produced on farms, community parcels, and home gardens.	Household, group, and community records. Information should be collected on a quarterly basis (every 3 months).
Number and geographic location of trees planted.	All tree species (including fruit and coffee) planted within community and along rivers and streams.	Household, group, and community records.
Number of farms maintaining buffer zones along all water bodies.	Buffer zones are undeveloped areas directly adjacent to bodies of water.	Oral or visual confirmation.

Appendix G: Response to FUNDESYRAM Feedback

1. In response to FUNDESYRAM's concern about measuring solidarity among individuals in the community, we recommend the World Bank's website on "Measuring Social Capital".

> Social capital is another way of expressing what FUNDESYRAM sees as "solidarity." It includes concepts like networks, trust, collective action, social inclusion, and information sharing. This site provides tools and instruments that can be used in collecting data related to social capital as well as important considerations to take into account when measuring social capital at different stages in the program cycle.

2. In response to the concern about measuring food security, we recommend the "Global Food Security Index" website.

> "The Global Food Security Index considers the core issues of affordability, availability, and quality across a set of 105 countries. The index is a dynamic quantitative and qualitative scoring model, constructed from 25 unique indicators, that measures these drivers of food security across both developing and developed countries."

3. FUNDESYRAM expressed interest in including a measurement for decreased women's work at home and in other domestic activities. The addition and placement of this indicator is up to their discretion, but we believe it could be added under Result 2.2 or Result 2.5.

4. In response to the concern about measuring reductions in reproductive labor, we recommend the "Women's Empowerment in Agriculture Index":

> "The Women's Empowerment in Agriculture Index (WEAI) measures the empowerment, agency, and inclusion of women in the agriculture sector in an effort to identify ways to overcome those obstacles and constraints. The Index is a significant innovation in its field and aims to increase understanding of the connections between women's empowerment, food security, and agricultural

growth. It measures the roles and extent of women's engagement in the agriculture sector in five domains: (1) decisions about agricultural production, (2) access to and decision-making power over productive resources, (3) control over use of income, (4) leadership in the community, and (5) time use. It also measures women's empowerment relative to men within their households."

5. In response to FUNDESYRAM's request for a datasheet or form that can be used by leaders to ask questions in local communities, we have provided a Performance Monitoring Plan template.

Appendix H: Performancing Monitoring Plan Example and Notes

Indicator	Data Collected	Data Objective	Approach/Method of Data Collection	Schedule/ Frequency of Data Collection	Person Responsible for Data Collection	Type/Frequency of Analysis	Life of Program Target
EXAMPLE ***Result 1.3: Strengthened community organizations (i.e. youth groups, women's groups, savings groups, organic agriculture groups, etc.)***							
EXAMPLE Organization, association, business has a business / strategic / operational plan.	Documentation of business /strategic/ operational plan	Measure the organizational capacity of the community groups	Collect documentation.	Once, after year two of the project.	Community leader	Once	15

Useful definitions for the Performance Monitoring Plan:

- Indicator – An indicator is a measure that provides information in order to monitor performance.

- Data collected – What is the means of verification for the indicator?

- Data objective – The data objective is one of the most important parts of this table. The data objective should explain how the information obtained with the indicator will be used. If it is unclear how information obtained from a particular indicator will be used, that indicator should be revised to reflect a measurement that is more useful.

- Approach / Method of data collection – How will data be collected? Are there specific instruments (surveys, focus groups, etc.) that need to be developed?

- Frequency of data collection – How often will the data be collected? This should be realistic and feasible.

- Person responsible for data collection – Who is going to collect the data?

- Type / frequency of analysis – How will the data be analyzed? It is important here to think about how the information will be used and shared. How often will the data be analyzed?

- Life of program target – Over the entire span of the program (for example, 3 years) what is the target for each indicator?

- Baseline – Data collected in order to understand the situation in a community / region at the outset of the intervention.

- End-line – Data collected in order to understand the situation in a community / region at completion of the intervention.

- Performance target – Performance targets specify the amount or level of outcome attainment that is expected, hoped for, or required. One way of setting reasonable targets is to review past performance. If past performance data is lacking, data from a baseline assessment is generally necessary. Targets should be meaningful and assist the learning process.