# Food Security Program Lifecycle Toolkit



**Food for the Hungry**
*Meeting physical and spiritual needs worldwide*

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# INTRODUCTION

Over the past twenty years of USAID Title II-funded food security programming in Food for the Hungry (FH), the level of programming has progressively become more complex and technically advanced over time.  In addition, many staff have asked a number of key questions related to the programming areas of design, implementation, monitoring and evaluation.  An illustrative list of those questions includes the following:

- What is the best way to assess food security needs and opportunities at both the national and local levels?
- What is the difference between qualitative information and quantitative data?
- How large should the sample size be for a baseline survey and how does one choose the sample?
- What is the difference between an output indicator and an impact indicator?
- How does one write good program indicators in order to be able to correctly measure changes over time?
- What kind of training is recommended for educating adults?
- What should the monitoring and evaluation system look like?
- What does a good quantitative questionnaire look like?
- How can we know that we achieved what we set out to achieve?

In an attempt to begin to address the need to increase our technical capacity and to respond to the questions and needs raised by our staff, FH submitted a proposal in 1997 to USAID's Office of Food for Peace.  This proposal was funded by USAID and its goal was to build the capacity of FH headquarters and field staff who were involved in the design, implementation, monitoring and/or evaluation of Title II-funded food security programs.  This Institutional Support Grant/Award (ISG/ISA) was renewed in 1999 for a period of five additional years.  Several key products and results were achieved under the seven year ISG/ISA program, including:

- The development of training notes and related tools and methods for assessing, designing, implementing, monitoring and evaluating Title II food security programs;
- The training of over 300 staff in these tools and methods; and
- The provision of on-going technical assistance to FH field staff in the proper use of the tools and methods.

According to the 2003 final evaluation report of FH's 1997-2003 ISG/ISA program, *"the ISA…succeeded in improving implementation of various aspects of its Title II programs. In so doing, it positively impacted the ability of its Title II fields to meet their food security targets"*.  Three specific areas of improvement were highlighted in the report:

- *"The quality of recent project proposals has improved significantly and staff participation in the process has increased.*
- *All fields have developed training curricula and lesson plans as a result of the ISA assessment and training.  Where lesson plans already existed before the ISA, their quality has also improved. In most fields, [community-level] training has become more participatory and the use of appropriate visual aids and other techniques to facilitate learning has increased.*
- *Awareness and use of Quality Improvement Checklists (QICs) is high in Mozambique and Kenya. Use of QICs has probably contributed to improved*

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*performance by community-based workers and has strengthened FHI's M&E capacity."*

Although these initial accomplishments were encouraging, the evaluation team pointed out the need to build on this work in future years.  A key recommendation of the 2003 evaluation report was that *"the ISA team, in conjunction with FHI Regional Directors (RDs) and Country Directors (CDs), should develop a basic orientation package of documents, tools and methods that should be given to new food security managers in order to improve program continuity"*.  A related recommendation of the team was that *"the next ISA* (which is now called the ICB program) *should consolidate the training materials and strengthen the implementation of the new tools and methods introduced during the current ISA and previous ISG".*  Thus, both the ISA/ISG program staff as well as the 2003 evaluation recognized the fact that the tools and methods that staff were trained to use prior to 2003 would be critical inputs for maximizing staff effectiveness in improving food security in Title II fields well into the future.

In addition to the need to compile the ISG/ISA tools in a training manual package, it had also become evident to FH that a methodology needed to be developed to help field trainers train current and new FHI staff and local partner staff in the use of these tools.  Without such a method and system, the use of the tools would most likely fade over time and would not produce the robust impact that we desired.  Indeed, the evaluation report recommended that *"future ISA training programs should consider putting increased emphasis on training of trainers, to improve the ability of in-country managers who receive ISA* (ICB) *training to effectively replicate that training with their subordinates"*.  Furthermore, as FHI increases the number of collaborative food security initiatives with local NGO partners over the coming years, we recognize the need to establish a system for providing on-going training to their staff in these core program competencies.  Finally, we believe that other Title II Cooperating Sponsors (CSs) would also benefit from this food security program toolkit.  As such, we would like to create opportunities for CSs to take advantage of training workshops in the use of these tools.

Given these key evaluation recommendations, and the stated desire of FH Title II headquarters and field staff to be able to institutionalize these materials and training resources, FH formulated the following goal for the period of 2004 to 2008:

***Overarching Goal:  Strengthen the capacity of current and new FH Title II food security staff and current and/or new food security partners by establishing a process for on-going capacity building in core programming competencies.***

In order to accomplish this goal, three main objectives have been formulated for the period 2004 to 2008:
1.  Produce a Food Security Program Life Cycle Toolkit;
2.  Conduct training of trainers events in FHI Title II fields in the use of the toolkit; and
3.  Monitor field replication of training/use of the toolkit and conduct additional workshops on as-demanded basis.

The pages that follow contain the toolkit cited in Objective #1 above.  Using the various tools and training materials that were developed under the ISG/ISA, as well as a number of other tools and documents written by other individuals, groups or organizations, the FH ICB team has produced a comprehensive toolkit that covers the following food

security program areas:  1) pre-program assessments, 2) program design, 3) baseline surveying, 4) innovative program implementation, and 5) program monitoring and evaluation.

**Figure 1:  Food Security Program Areas included in this Toolkit.**
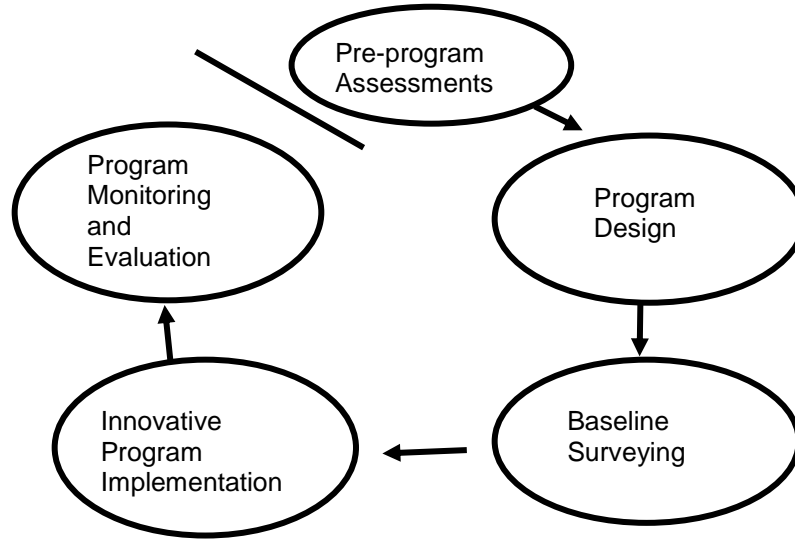


It is our hope and prayer that the guidance and multiple tools provided herein to manage the entire lifecycle of a food security program are useful to our food security staff, our local partners, and our fellow international Cooperating Sponsors throughout the world.

# CHAPTER 1: PRE-PROGRAM ASSESSMENT TOOLS

## INTRODUCTION TO CHAPTER 1

Chapter 1 of this manual provides a detailed introduction to:

1.1   <u>A Framework for Designing High Quality Food Security Programs</u> – a framework for FH staff that is guided by, and consistent with, FH's vision, operating principles, and definition of food security.

1.2   <u>Macro-targeting</u> – a four-step method used to improve targeting of food security interventions by means of comparing and contrasting key food security indicators between various regions within a country.

1.3   <u>Holistic Food Security Assessment (HFSA)</u> – a rapid, exploratory study of a specified geographical area designed to gather, synthesize and analyze information on physical, social, mental and spiritual dimensions of local conditions and the local food insecurity situation with enough objectivity and detail to support credible recommendations for food security program decisions.

1.4   <u>Rapid Rural Appraisal (RRA) & Participatory Rural Appraisal (PRA) Methodologies</u> – <u>RRA</u> is a multidisciplinary team social science approach that makes use of simple, non-standard methods and the knowledge of local people to quickly elicit, analyze and evaluate information about rural life and rural resources that are of relevance for taking action.  Information is collected using a diverse set of tools and techniques that facilitate the participation of community members.  RRAs typically last 5-7 days.  The focus of an RRA is generally on gathering information quickly while ensuring that the information is as rich and accurate as possible.  The main output of an RRA is generally a report that summarizes findings.  <u>PRA</u> is typically an extended process (that can last for months or years) which emphasizes empowerment of local people.  In PRA outsiders act mainly as facilitators and local people assume an active role in analysis of problems and in identifying and implementing solutions to solve them.  The emphasis in PRA is often not so much on the information as it is on the process and seeking ways to involve the community in planning and decision making.

1.5   <u>Holistic Community Appraisal (HCA)</u> – a modification of other participatory learning methodologies used to explore not only physical and social, but also spiritual dimensions of community life that may have positive or negative impacts on transformational development.  HCA is designed to provide information and analysis concerned with the often interdependent and interrelated physical, social, emotional, spiritual aspects of people; and their relationships with God, other people, and the whole of creation.  HCA is used to gather information and data from communities that is often missed during other participatory learning approaches because of a blind spot in the modern worldview which separates the

material and spiritual realms and takes for granted that what happens in one has no impact in the other.

1.6    Appreciative Inquiry (AI) – an innovative participatory learning tool that differs philosophically from standard community assessments in that, rather than analyzing what a community lacks or what hinders development (a problem-based approach); AI begins with the discovery of what is working well and then, through community member participation and involvement, new initiatives for success are formulated.  AI is about community members becoming involved in building the kinds of communities they want to live in.

# 1.1 DESIGNING FH FOOD SECURITY PROGRAMS

This chapter seeks to provide FH staff with a coherent framework for designing high quality food security programs that are guided by, and consistent with, FH's vision and operating principles.  As described below in greater detail, this framework includes a variety of important principles that define the distinct and essential nature of FH programs.  It is this nature that distinguishes FH programs from those of other organizations.

The principles, methods and tools used by different organizations to plan, implement, monitor and evaluate programs are typically guided by the mandate (vision) and philosophical ideals of the organization.  For instance, consider two organizations interested in developing a food security program.  The mission of the first organization is to strengthen and enable community leadership to identify and resolve their own problems, while the mission of the second to improve natural resource management and health through improved infrastructure.  It is possible that both of these organizations could develop innovative and effective food security programs but, given their different missions, one would expect the designs and functions of those programs to look very different.

FH's vision statement (Fig 1.) stresses that FH programs should be linked to eradicating hunger.  As Randy Hoag, FHI's president has stated, "This is our rallying cry…we will fight until we take that hill."  In 2004, up to 24,000 people died each day of hunger and hunger related diseases every day.  FH's vision is very much about ending hunger!

**Figure 2:  FH Vision Statement**

| God called and we responded until physical and spiritual hungers ended worldwide. |
| --- |

Note however that the FH vision is only one of numerous organizational mandates that should guide FH program design and implementation.  Consider FH's priorities as defined by its Vision of a Community (Fig. 2).

**Figure 3:  FH Vision of a Community**

| The community and its people are advancing toward their God-given potential… |
| --- |

*The community and its people….*  Some organizations work at the national and international levels, some work only with individuals.  FH focuses on "communities" and "their people".  While the world's problems can be overwhelming, we can work with one community and one person at a time.  These are the levels where FH is most committed to showing impact; if FH programs are successful we will be able to demonstrate impact (transformation) at both the individual and community levels.

While FH works with a variety of partners, including national and regional governments and other NGOs, FH has defined leaders, families and churches as the three partner groups that merit special attention in the design and implementation of FH programs.  Implications of this emphasis for program design are described in Figure 4 below.

**Figure 4:  Vision of a Community Implications for Program Design**

| FH Honors and Equips Community Leaders | FH Honors and Strengthens Families | FH Honors the Role of Local Churches |
|---|---|---|
| FH programs are to be designed to honor and equip local leaders (political, social, economic and religious).  This statement implies a strong commitment collaborate with local leaders in their development planning and implementation efforts; rather than merely consulting with them as we develop "our" programs.  It is also an unambiguous call for participatory approaches and for humility of FH staff who are guests, learners, and facilitators within the communities where they serve. | FH programs are to be designed to strengthen nuclear and extended families, equipping them so that they can provide for the physical, social, mental and spiritual needs of their children.  A central focus of all FH programs is improving holistic care for children (not just care for their physical needs), recognizing that children hold the keys to the future of the communities and their nations. | As a faith-based organization FH recognizes the unique role local churches can and should provide within communities to meet physical, social, mental and spiritual needs.  We see the church as a caretaker for the poor, as a peace-maker in conflict, as a force for teaching important social values, and as a spiritual caretaker for many within the community.  FH programs are therefore committed to honoring and equipping local church leaders to serve and care for their communities. |

*Ministry to all people and ministry to the whole person….*  FH provides relief and development assistance without discrimination based on religion, race, gender or nationality. The Bible tells us that God created all people in his image (Gen. 1:27), therefore, all are of equal value, worth, and dignity.  Male or female, Christian or non-Christian, rich or poor, and regardless of race or nationality – all human life is sacred.  Additionally, in keeping with its Christian character and motivation, FH seeks in all of its activities to emulate loving concern for the spiritual and physical needs of the whole person (body, mind, spirit), as modeled by Jesus Christ.  The concept of biblical wholeness is closely intertwined with the biblical concept of the Hebrew word *shalom,* which is best translated as "wholeness" or "completeness" and includes the idea of complete health, peace, welfare, safety, soundness, tranquility, prosperity, perfection, fullness, rest, harmony and the absence of agitation or discord.  The Bible teaches that sin impacted all parts of people's relationships, but God's redemptive plan is equally comprehensive, reconciling "all things" (Col 1:19-20); bringing hope and substantial healing in all areas.  Indeed, the entire biblical story is concerned with the presence of a Creator who desires to restore His creation to the wholeness and completeness of the original creation.  Christians, as Christ's ambassadors, are therefore to be ministers of His reconciliation to a broken and hurting world (2 Corinthians 5:18).  In short, all FH programs should be characterized by intentional efforts to advance the biblical concept of *shalom* within the communities in which we serve.

## Applying FH's Vision and Mandate to Food Security Programs

If we are to understand how FH's vision and mandate apply to food security programs, it is important to begin with a core definition of food security and a basic understanding of its underlying causes.  USAID's defines Food Security as follows:

**"Food security exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life."[1]**

This definition focuses on three distinct but interrelated elements. All three are essential to achieving food security and form the basis of the conceptual framework that underlies the current Title II program.

- Food availability: sufficient quantities of food from household production, other domestic output, commercial imports or food assistance;
- Food access: adequate resources to obtain appropriate foods for a nutritious diet, which depends on income available to the household, on the distribution of income within the household and on the price of food; and
- Food utilization: proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water and adequate sanitation, as well as knowledge within the household of food storage and processing techniques, basic principles of nutrition and proper child care and illness management.

Recently USAID's Food For Peace (FFP) office has expanded the basic food security conceptual framework to include a fourth pillar to this definition to make explicit the risks (economic, social, health and political risks, as well as natural shocks) that impede progress toward improvements in food availability, access and utilization. As a result of the addition of this fourth pillar, Title II programs in the field are being reoriented so that the vulnerability of food insecure individuals, households and communities is addressed more directly.  As a result, Title II programs will increasingly focus on enhancing the ability of individuals, households and communities to cope with shocks in order to reduce their vulnerability.

In both emergency and non-emergency Title II programs, the ultimate objective is leaving people and communities better off – to "enhance" human capabilities, livelihood capacities and the resilience of communities. The importance of improved governance, especially the need for communities to have greater "capacity to influence factors (decisions) that affect their food security," is also included as an important contributor to increasing program impact.

Ultimately, FFP's primary focus is captured in the single strategic objective (SO) of their 2006-2010 strategic plan: "*Food insecurity in vulnerable populations reduced*[2]."

In summary, FFP recognizes a variety of casual factors which may lead to food insecurity, vulnerability and marginalization including factors which are:
- Environmentally-based;
- Economically-based;
- Socially-based;
- Politically-based.

As a faith-based organization, FH recognizes additional factors that lead to food insecurity, vulnerability and marginalization that are *spiritually-based*.  Spiritually-based causes of food insecurity often underlie socially-based causes.  That is to say, the set of

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[1] USAID Policy Determination Number 19, April 1992.
[2] FFP Strategic Plan 2006-2010, May 2005.

assumptions held consciously or unconsciously in faith about the basic makeup of the world and how the world works, influences both social norms and behaviors.  Consider the impact of corruption, crime, ethnic and social discrimination, greed, conflict and war upon food security.  Underlying causes for each of these causes often reside in consciously or unconsciously held beliefs about the metaphysical world – that is to say, beliefs in reality beyond what is perceptible to the senses.  As a faith-based organization, one major distinctive of FH food security programs should be our effort to understand and effectively address spiritually-based causes of food insecurity.

Given our recognition of spiritually-based causes of food insecurity, FH has adopted a modified definition of food security.  FH defines Food Security as follows:

**"Food security exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs AND access to Biblical truth to meet their spiritual needs in order to have a productive and healthy life."**

 We achieve this through our food security programs by increasing household-level:
- Availability of food supplies via improved local production;
- Access to food supplies via improved market trade;
- Utilization of food supplies via improved health and nutrition knowledge and behavior; and
- Through new knowledge and behavior change resulting from exposure to Biblical truth.

 In summary, FH food security programs should be characterized, at a minimum, by program designs and results which:
- Increase food availability and access;
- Improve food utilization;
- Enhance the ability of individuals, households and communities to cope with shocks in order to reduce their vulnerability;
- Incorporate and embrace community leaders in all aspects of program planning and implementation; leave community leaders well equipped to effectively lead transformational efforts within their communities;
- Strengthen nuclear and extended families, equipping them so that they can better provide for physical, social, mental and spiritual needs of their children,
- Provide development and relief assistance without discrimination based on religion, race, gender or nationality;
- Honor local churches and strengthen their roles within communities to meet physical, social, mental and spiritual needs;
- Seek to understand and effectively address underlying spiritually-based causes of food insecurity;
- Advance the biblical concept of *shalom* within the communities in which we serve; and
- Demonstrate impact (transformation) at both the individual and community levels.

# 1.2  A FOUR-STEP METHOD FOR MACRO-TARGETING

## Description

A Four-Step Method for Macro-Targeting is used by FH staff to improve targeting of food security interventions by means of comparing and contrasting key food security indicators between various regions within a country.  Data for macro-targeting analysis is typically gathered from secondary data sources.  Micro-targeting is used during the pre-program assessment stage of the program lifecycle to identify and prioritize food insecure macro-regions within a country where food security programs are most needed.  Generally speaking, prioritized macro-regions are those that are later targeted for the design and implementation of new food security programs.

## Introduction

It is important that food security program staff be able to assess macro-level food insecurity across the entire country in order to target programs to areas of high food insecurity where achieving significant reductions in food insecurity is viable.  To aid staff in this assessment FH promotes a Four-Step Method for Macro-Targeting.  This methodology has proven extremely useful in assisting FH staff in the following areas:

1. Identification, prioritization and selection of areas to begin food security programs in countries where FH has not previously worked;
2. Identification, prioritization and selection of areas for transferring a food security program from one region of a country to another; and
3. Comparing and contrasting food insecurity indicators in FH served regions with other regions in the country in order to establish reference points to aid in judging impact of food security programs over time.

The importance of comparing and contrasting a number of key food security indicators in the macro-targeting, rather than one or two key indicators, is illustrated in the example below.

From the early-1980s through the mid-1990s, FH/Bolivia operated under the assumption that the western highland plains of Bolivia were the most food insecure region in the country.  This assumption was based largely on statistics showing low levels of agricultural productivity and production in the highlands when compared to other regions within the country.  However, in the mid-1990s, FH/Bolivia staff engaged in a rigorous macro-targeting exercise which, in addition to indicators of productivity and production, considered other indicators of food insecurity including: 1) poverty, 2) malnutrition of children under 5 years old, 3)  access to potable water, 4) access to adequate sanitation, and 5) number of families affected (population).  When these additional indicators were considered it became apparent that food insecurity was significantly greater in the central mountain valleys than in the western highland plains.  As a result FH/Bolivia entirely transferred its Title II food security program from the western highland plans to the central mountain valleys.  As a result of this improved targeting FH/Bolivia has bettered its impact both in terms of reduced cost per beneficiary and in terms of reduced food insecurity resulting from its food security program.

How best to measure food insecurity in order to both target program activities and measure impact is the subject of considerable debate.  This is due in part to the

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difficulty of defining the concept of food insecurity. There are therefore many methods and criteria that may be considered when selecting a macro-program area for developing food security activities. That said, the methodology presented below, and the associated recommendations regarding criteria, have proven to be a practical macro-targeting tool that can greatly assist food security staff to accomplish the task of targeting and selecting macro-regions for food security program activities.

## Criteria for Targeting

There are many criteria that need to be considered when selecting a macro-area for our food security activities. Often food security program staff will limit the criteria to strictly food security indicators such as child malnutrition, food production, food gaps, health, water, sanitation, etc. However, it is also important to recognize that the selection of a future program region is influenced by many additional factors. The following is an illustrative, but incomplete, list of some of the key factors that need to be considered when selecting a region of the country in which to work:

- Relatively high level of food insecurity as measured by the following indicators: poverty, child (or infant) mortality, child malnutrition (underweight, wasting, and stunting), yields of major crops, per-capita daily consumption of calories, access to potable water and sanitation, household food gap during the year, and others;
- Relatively high level of population density;
- Relatively high development priority of the host government, the donor and FH;
- Moderate to high degree of physical development potential using agro-ecological, water resource and land-use criteria;
- High degree of local population's willingness to participate in the development of their region;
- Low density of other similarly-focused PVOs/NGOs working in the region;
- Suitable access to the region;
- Acceptable distance from other program regions, the central office and other regional offices; and
- Other program-specific criteria.

## Steps

The four steps of macro-targeting may be summarized as follows:
- Step One - Selection of Targeting Indicators
- Step Two - Identification of Secondary Data Sources
- Step Three - Secondary Data Collection and Analysis
- Step Four - Macro-Level Food Security Mapping

### Step One – Selection of Targeting Indicators

In that fields must typically rely solely on secondary data for macro-targeting, the selection of indicators will largely be a function of data availability. It may be very interesting to use per capita daily caloric consumption as an indicator of food security, but regional-level data for that indicator may not be available. The following is a menu of the major indicators that should be considered as macro-indicators of food security, though you may choose to add others:

- Under Five Mortality;
- Under Five Underweight, Stunted, and Wasted;
- Poverty;
- Agricultural Productivity of Major Crops;
- Per-Capita Daily Caloric Consumption;
- Access to Potable Water; and
- Access to Adequate Sanitation.

The following is a description of the food security targeting sections of the 1996 Bolivia DAP (now called MYAP). You will note that two levels of macro-targeting are developed: Bolivia as a nation compared with other nations in Latin America, and 2) Macro-regions (called Departments) within the country of Bolivia. These targeting sections were written from the data that was analyzed in the macro-targeting exercise. Thus, they provide a good example of the use of secondary data for macro-targeting.

| Text from Bolivia DAP |
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*Bolivia Food Security Targeting: National Food Security in 1996*

By several accounts, Bolivia is one of the poorest and most food insecure countries in Latin America as measured by most economic and social indicators (World Bank/UDAPSO, 1996; UNICEF, 1996; Bolivia Ministry of Human Development, 1995; CONALSA, 1995). In the Cariaga food security study, four social indicators were chosen to determine levels of regional food security. They are the incidence of absolute poverty, the intensity of poverty, the infant mortality rate and the rate of malnutrition of children under five. In comparison to other South American countries, Bolivia fares the worst in almost all of those categories.

Seven out of ten Bolivians live in poverty, with a remarkable 94% of the rural population unable to meet their basic needs (World Bank/UDAPSO, 1996). The 1996 per capita GNP of $860 was the lowest in Latin America and $2,123 less than the Latin American average (UNICEF, 1996). Bolivia's infant mortality rate of 75 per 1000 live births (ENDSA, 1994; World Bank/UDAPSO, 1996) is the highest in South America whose average is 38 per 1000. In addition, the chronic malnutrition rate of 28% for children under three years of age is the highest in South America, with the exception of Ecuador (ENDSA, 1994; World Bank/UDAPSO, 1996; UNICEF, 1996). Finally, Bolivia's maternal mortality related to childbirth remains alarmingly high at approximately 390 for 100,000 live births, with the number reaching approximately 930 in the rural highland region (ENDSA, 1994).

In addition to those indicators, agricultural production is also relatively low in comparison with other Latin American countries. Smallholder agricultural production has not grown more than 1% per year during the last decade while the population has grown by 2.4% per annum resulting in a negative per capita smallholder agricultural production growth rate (CONALSA, 1995). Similarly, national food production is equivalent to only 1,880 calories per day per inhabitant or 83% of the 2,250 daily recommended minimum of calories (Cariaga, 1996). These data have serious food security implications in a country that is highly agrarian in nature.

Finally, Bolivian households have relatively low access to potable water and sanitation, especially in rural areas.  According to the 1992 national census, only 19% and 6% of rural Bolivians have access to potable water and sanitation respectively compared to 51% and 36% for all of Latin America (UNICEF, 1996).

*Bolivia Food Security Targeting:  Regional Food Security 1996*
The above sheds light on the Bolivian national food security situation in comparison with the rest of Latin America.  However, Bolivia's internal food security problem is not evenly dispersed geographically throughout the country.  In general, the western highland and eastern lowland regions are relatively food secure areas, with the primary area of food insecurity lying in a north-south belt paralleling the Andes range (eastern highland and highland valleys region).  Map 1 below shows the distribution of food insecurity as defined by the Cariaga study.  The total population in the shaded food insecure provinces is approximately 1,293,712 or 18% of the total population of Bolivia.  Targeting those areas will maximize the both the impact on regional/local food security and hence on national food security.

**Map 1:  Regional Distribution of Food Insecurity in Bolivia**
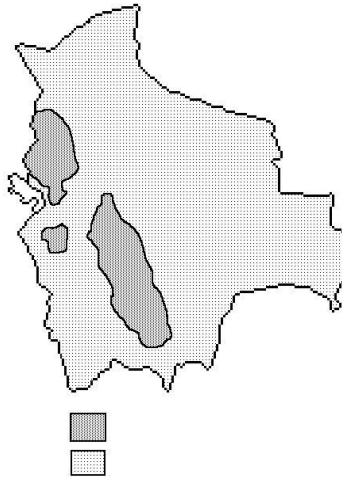
In response to the need to geographically target food insecurity, FH/Bolivia is proposing to implement its rural food security activities in the provinces listed in Table 1 and Map 2 below.  Prior to 1995, Bolivia had no national food security indicators and hence no geographical breakdown of relative food insecurity.  However, in 1995, the Government of Bolivia and USAID/Bolivia hired the consulting firm of Cariaga to study food security using national statistical data disaggregated to the provincial level.  Four indicators were chosen to represent food security--population in absolute poverty[3], the percentage of the population in intense poverty[4], the infant mortality rate[5] and the rate of malnutrition of children[6].  Next to each province are data on the four food security indicators.

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[3] Defined as the population in a given province living below the poverty line established by Government of Bolivia.  The Cariaga study defines food insecure provincial sections as > 6,000 inhabitants in absolute poverty.  A provincial section represents on average 9,000 inhabitants.
[4] Defined as the average level of insatisfaction of basic necessities of the poor population of one geographic area in relation to the minimum standard of living established by GOB.  The Cariaga study defines food insecure provinces as > 50% poverty intensity.
[5] Defined as the number of infant deaths (ages 0 to 1) per 1000 live births.  The Cariaga study defines food insecure provinces as > 75, which is the national IMR.
[6] Defined as the global rate of malnutrition of children under age five measured by weight-for-age.  The Cariaga study defines food insecure provinces as > 10.87%, which is the national rate.

**Table 1:  Proposed Provinces for FH/Bolivia Food Security Interventions**

| Province | Total Population | Indicator 1: % of Population in Absolute Poverty | Indicator 2: Poverty Intensity | Indicator 3: Infant Mortality Rate | Indicator 4: Mal-nutrition Rate | Total # of Food Insecurity Indicators |
|---|---|---|---|---|---|---|
| Pacajes | 43,351 | *65%* | *53.80%* | 54 | *16.63%* | 3 |
| Inquisivi | 57,345 | *56%* | *52.20%* | 64 | *17.48%* | 3 |
| Avaroa | 23,147 | *66%* | *50%* | *93* | 9.24% | 3 |
| Tapacarí | 19,202 | *89%* | *63.70%* | *92* | *23.24%* | 4 |
| Capinota | 24,444 | *50%* | 44.60% | *90* | *23.83%* | 3 |
| Chayanta | 73,128 | *82%* | *59.60%* | *119* | *19.60%* | 4 |
| Charcas | 31,233 | *89%* | *61.90%* | *108* | *22.18%* | 4 |
| Bilbao | 10,045 | *85%* | *57.10%* | *115* | *21.90%* | 4 |
| Azurduy | 23,492 | *84%* | *58%* | *91* | *12.12%* | 4 |
| **TOTAL** | **305,387** | **72.3%[7]** | **55.8%[5]** | **90[5]** | **18.3%[5]** | **3.55[5]** |

**Map 2:  FH/Bolivia Rural Food Security Activities 1997-2001**



| | | | | | |
|---|---|---|---|---|---|
| ■ | Inquisivi | ■ | Capinota | ■ | Avaroa |
| ■ | Pacajes | ■ | Bilbao | ■ | Chayanta |
| ■ | Tapacarí | ■ | Charcas | ■ | Azurduy |
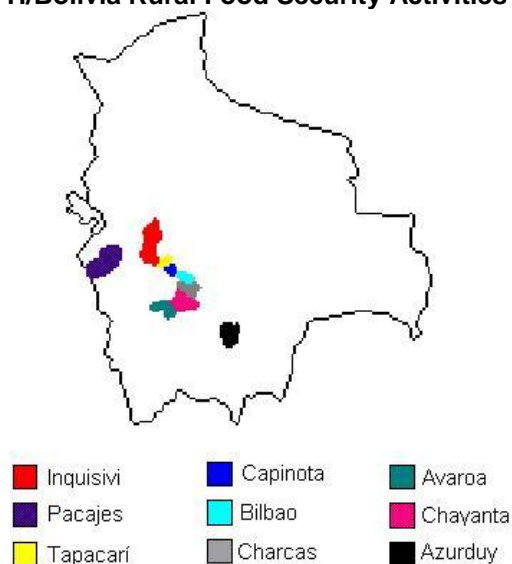
**End text from Bolivia DAP**

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[7] Weighted average for the nine provinces.

### Step Two – Identification of Secondary Data Sources

The growing proliferation of high-speed access to the Internet is turning the "Web" into the best place to search for secondary data.  Key web sites for national (and some provincial) data include the following:

- Under Five Mortality, Under Five Underweight, Stunted, and Wasted, Access to Potable Water, and Access to Adequate Sanitation: http://www.unicef.org/publications/files/SOWC_2005_(English).pdf
- Poverty:   http://devdata.worldbank.org/
- Agricultural Productivity of Major Crops: http://www.fao.org/waicent/portal/statistics_en.asp

Good secondary data at the provincial (or sub-national) level can often only be found within the countries themselves.  Sources for this data often include the National Office of Statistics, the Ministries of Health, Agriculture, Rural Development; NGO offices, etc.  Remember that this macro-targeting exercise will only be useful if good data exists at the sub-regional level.

### Step Three – Secondary Data Collection and Analysis

After collecting data for the various macro-level indicators that have been selected, the data must be assembled and analyzed to allow for comparisons and contrasts.  One tool to accomplish that is the *Direct Matrix Ranking Tool*.  With this tool, a numerical rank is assigned to each of the provinces based on the relative value of the indicator.  The highest number in the ranking equates with the highest level of food insecurity for that particular indicator.

In the hypothetical example on the following page, Zemba Province is more food insecure in terms of the under five mortality rate.  Additionally, in this example, when the five food security indicator ranks are aggregated, Zemba Province also turns out to be the most overall food insecure.  Thus, since Zemba scores the highest you would presumably strongly consider working there if you sought to have an impact on all the indicators measured.

Note that the Direct Matrix Ranking Tool works well when equal emphasis is placed on each of the different food security indicators, as shown in the following example.  At times however it may be desirable to place a higher weight on some indicators and a lower weight on others.  In such circumstances the Direct Matrix Ranking Tool would not be suitable.  We will introduce another tool later in this text that is better suited for analysis with weighted indicators.

**Figure 5: Example of Direct Matrix Ranking Tool**

**Indicator #1: Under Five Mortality**

| Province | <5 Mortality | Rank<br>5 = worst<br>1 = best | Relative to<br>National Average<br>(Note: Below is good) |
|---|---|---|---|
| Zemba Province | 240 | 5 | Above |
| Hula Province | 215 | 4 | Above |
| Mamba Province | 185 | 3 | Above |
| Ouedo Province | 150 | 2 | Below |
| Evans Province | 120 | 1 | Below |
| *National Average* | *182* | | |

**Indicator #2: Under Five Stunted**

| Province | <5 Stunted | Rank<br>5 = worst<br>1 = best | Relative to<br>National Average<br>(Note: Below is good) |
|---|---|---|---|
| Ouedo Province | 55% | 5 | Above |
| Zemba Province | 54% | 4 | Above |
| Mamba Province | 48% | 3 | Same |
| Hula Province | 44% | 2 | Below |
| Evans Province | 39% | 1 | Below |
| *National Average* | *48%* | | |

**Indicator #3: Poverty**

| Province | Below Poverty Line | Rank<br>5 = worst<br>1 = best | Relative to<br>National Average<br>(Note: Below is good) |
|---|---|---|---|
| Hula Province | 70% | 5 | Above |
| Evans Province | 65% | 4 | Above |
| Ouedo Province | 58% | 3 | Below |
| Zemba Province | 55% | 2 | Below |
| Mamba Province | 45% | 1 | Below |
| *National Average* | *59%* | | |

**Indicator #4: Maize Yield**

| Province | Maize Yield (MT/HA) | Rank<br>5 = worst<br>1 = best | Relative to<br>National Average<br>(Note: Above is good) |
|---|---|---|---|
| Zemba Province | 0.9 | 5 | Below |
| Mamba Province | 0.95 | 4 | Below |
| Evans Province | 1 | 3 | Below |
| Hula Province | 1.4 | 2 | Above |
| Ouedo Province | 1.6 | 1 | Above |
| *National Average* | *1.17* | | |

**Indicator #5: Per-capita Calorie Consumption**

| Province | Per-Cap Calorie Con. | Rank<br>5 = worst<br>1 = best | Relative to National Average<br>(Note: Above is good) |
|---|---|---|---|
| Zemba Province | 1650 | 5 | Below |
| Evans Province | 1750 | 4 | Below |
| Mamba Province | 1830 | 3 | Below |
| Ouedo Province | 1940 | 2 | Above |
| Hula Province | 2000 | 1 | Above |
| *National Average* | *1834* | | |

**Figure 6:  Example of Summary Table -- Direct Matrix Ranking Tool**

| Indicator | Regions | | | | |
| --- | --- | --- | --- | --- | --- |
| | Zemba Province | Evans Province | Mamba Province | Ouedo Province | Hula Province |
| <5 Mortality | 5 | 1 | 3 | 2 | 4 |
| <5 Stunted | 4 | 1 | 3 | 5 | 2 |
| Poverty | 2 | 4 | 1 | 3 | 5 |
| Maize Yield | 5 | 3 | 4 | 1 | 2 |
| Cal Consump | 5 | 4 | 3 | 2 | 1 |
| **Total Score** | **21**<sup>*</sup> | **13** | **14** | **13** | **14** |

<sup>*</sup>21 = highest food insecurity; 13 = lowest food insecurity

Another useful tool to analyze secondary data is the ***Indicator Matrices Tool***.  Similar to the Direct Matrix Ranking Tool, a numerical rank is assigned to each of the provinces based on the relative value of the indicator.  The highest number in the ranking equates with the highest level of food insecurity for that particular indicator.  In the hypothetical example below, Oueda Province is the worst off in terms of under five stunting.  However, in contrast to the Direct Matrix Ranking Tool, the Indicator Matrices Tool allows you to place a greater weight on certain indicators.  It also allows you to rank provinces based on the number of one and two rankings, one, two and three rankings, etc.  When the five food security indicator ranks are aggregated, Oueda Province turns out to be much closer to Zemba Province in terms of food insecurity than in the previous example using the Direct Matrix Tool.  Using the two tools together, you would presumably strongly consider working in Zemba and Oueda Provinces.

**Figure 7:  Example of Indicator Matrices Tool**

**Matrix #1:  Under Five Mortality**

| Province | <5 Mortality | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note:  Below is good |
| Zemba Province | 240 | 1 | Above |
| Hula Hula Province | 215 | 2 | Above |
| Mamba Province | 185 | 3 | Above |
| Ouedo Province | 150 | 4 | Below |
| Evans Province | 120 | 5 | Below |
| *National Average* | *182* | | |

**Matrix #2:  Under Five Stunted**

| Province | <5 Stunted | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note:  Below is good |
| Ouedo Province | 55% | 1 | Above |
| Zemba Province | 54% | 2 | Above |
| Mamba Province | 48% | 3 | Same |
| Hula Hula Province | 44% | 4 | Below |
| Evans Province | 39% | 5 | Below |
| *National Average* | *48%* | | |

**Matrix #3:  Under Five Underweight**

| Province | <5 Underweight | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note:  Below is good |
| Zemba Province | 49% | 1 | Above |
| Ouedo Province | 48% | 2 | Above |
| Mamba Province | 39% | 3 | Below |
| Evans Province | 33% | 4 | Below |
| Hula Hula Province | 32% | 5 | Below |
| *National Average* | *40%* | | |

**Matrix #4:  Under Five Wasted**

| Province | <5 Wasted | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note:  Below is good |
| Evans Province | 8% | 1 | Above |
| Ouedo Province | 7% | 2 | Above |
| Hula Hula Province | 6% | 3 | Same |
| Zemba Province | 5% | 4 | Below |
| Mamba Province | 4% | 5 | Below |
| *National Average* | *6%* | | |

**Matrix #5:  Poverty**

| Province | Below Poverty Line | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note:  Below is good |
| Hula Hula Province | 70% | 1 | Above |
| Evans Province | 65% | 2 | Above |
| Ouedo Province | 58% | 3 | Below |
| Zemba Province | 55% | 4 | Below |
| Mamba Province | 45% | 5 | Below |
| *National Average* | *59%* | | |

**Matrix #6: Maize Yield**

| Province | Maize Yield (MT/HA) | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note: Above is good |
| Zemba Province | 0.9 | 1 | Below |
| Mamba Province | 0.95 | 2 | Below |
| Evans Province | 1 | 3 | Below |
| Hula Hula Province | 1.4 | 4 | Above |
| Ouedo Province | 1.6 | 5 | Above |
| *National Average* | *1.17* | | |

**Matrix #7: Per-capita Calorie Consumption**

| Province | Per-Cap Calorie Con. | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note: Above is good |
| Zemba Province | 1650 | 1 | Below |
| Evans Province | 1750 | 2 | Below |
| Mamba Province | 1830 | 3 | Below |
| Ouedo Province | 1940 | 4 | Above |
| Hula Hula Province | 2000 | 5 | Above |
| *National Average* | *1834* | | |

**Matrix #8: Households with Access to Potable Water**

| Province | Access to H2O | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note: Above is good |
| Ouedo Province | 15% | 1 | Below |
| Zemba Province | 18% | 2 | Below |
| Mamba Province | 19% | 3 | Same |
| Hula Hula Province | 20% | 4 | Above |
| Evans Province | 22% | 5 | Above |
| *National Average* | *19%* | | |

| Province | Access to Sanit. | Rank | Relative to National Average |
|---|---|---|---|
| | | | Note: Above is good |
| Mamba Province | 7% | 1 | Below |
| Ouedo Province | 8% | 2 | Below |
| Zemba Province | 12% | 3 | Above |
| Evans Province | 13% | 4 | Above |
| Hula Hula Province | 14% | 5 | Above |
| *National Average* | *11%* | | |

**Figure 8:  Example of Ranking of Provinces Using Indicator Matrices Tool**

| Province | Number of Indicators for Rank 1 |
|---|---|
| Zemba Province | 4 |
| Ouedo Province | 2 |
| Hula Hula Province | 1 |
| Mamba Province | 1 |
| Evans Province | 1 |

| Province | Number of Indicators for Rank 2 |
|---|---|
| Ouedo Province | 3 |
| Zemba Province | 2 |
| Evans Province | 2 |
| Hula Hula Province | 1 |
| Mamba Province | 1 |

| Province | Number of Indicators for Ranks 1 & 2 |
|---|---|
| Zemba Province | 6 |
| Ouedo Province | 5 |
| Evans Province | 3 |
| Hula Hula Province | 2 |
| Mamba Province | 2 |

## Step Four – Macro-level Food Security Mapping

Once the data is collected, analyzed and provinces are ranked, it is often useful to conduct a mapping exercise by plotting the various data and rankings on a large map that all staff can see and interact with.  In addition to the secondary data, you will want to consider the other criteria that you will be using to choose your area of activities such as distance from other work zones, presence of other NGOs, government priorities, etc. The visual representation of data on the map allows you to see things in a different and often clearer way.  When all the criteria are placed together on the map you should be able to make a prayerful, corporate decision about where to propose opening future food security programs.

# 1.3  HOLISTIC FOOD SECURITY ASSESSMENT (HFSA)

## Description

A Holistic Food Security Assessment (HFSA) is a rapid, exploratory study of a specified geographical area designed to establish an initial understanding of local conditions and food security problems and characteristics.  A HFSA is used to gather, synthesize and analyze information on physical, social, mental and spiritual dimensions of local conditions and the local food insecurity situation with enough objectivity and detail to support credible recommendations for food security program decisions.

## Introduction

A HFSA employs a variety of methods and tools to gain a better understanding of food security within the micro-region.  It frequently involves in-depth interviewing and participant observation to gain a better understanding of local perceptions regarding food insecurity, coping strategies (the actions people take when they do not have enough food or money to buy food), intra-household decision-making related to food security, access to health care facilities, access to clean water and sanitation facilities, food consumption patterns, agricultural practices, and important beliefs and values that may impact food security.

A HFSA is realized within a region prioritized previously through macro-targeting. Through the HFSA, FH staff (and their partners) gather and analyze information about communities, food security needs, potential partner organizations, government agencies and other stakeholders.

## Pre-field Assessment Stakeholder Analysis

Prior to conducting the fieldwork component of HFSA it is important conduct an analysis of potential stakeholders.  *Stakeholders are individuals or institutions with interests (have something to gain or lose) in the process and outcomes of FH activities and those that have the ability to significantly affect a project, positively or negatively.*  Stakeholders may include national government, international and national NGOs, faith-based organizations (church and para-church), research institutions, private sector institutions, donors, and the target group itself.  While the process of stakeholder identification begins prior to field data collection, it is important to note that stakeholder analysis is explored in greater depth at the community level and becomes an important input to the program design process. During stakeholder analysis the HFSA team seeks to 1) identify principle stakeholders, 2) investigate their interests, roles, relative power to other stakeholders and capacity to participate; and 3) identify relationships between stakeholders (including potential for cooperation and/or conflict).

## Sequence of HFSA Activities

The sequence of steps in conducting an HFSA is summarized in Box 1.

**Box 1: Steps to a HFSA**[8]

- **Setting objectives** Establishing clear objectives is essential to designing the diagnostic process and keeping it on track.

- **Review existing information from secondary sources** A thorough review of information from secondary sources and an assessment of its validity, reliability and comprehensiveness establish the parameters for the collection of primary information.

- **Identification of issues for field data collection** Where gaps in available information exist, methodologies must be selected and tools designed to gather missing information.

- **Stakeholder discussions** Prior to finalizing site selection and beginning the expensive and time consuming process of data collection it is important to hold initial discussions with known potential stakeholders to: 1) obtain initial input from stakeholders regarding their interest in, and potential involvement in the various stages of program implementation from assessment to evaluation, and 2) validate preliminary conclusions emerging from the secondary information. Stakeholders to contact include representatives of communities where activities may take place, members of potential partner organizations, local authorities, and other organizations or research institutes that may have relevant experience or information.

- **Site selection** Locations for field data collection must seek to reasonably represent locations where programs will be implemented. Unfortunately, because of resource limitations it is often impossible to sample a statistically representative set of communities, therefore careful thought must be given to site selection to ensure that those selected will allow HFSA teams to capture the full range of variation within the targeted area including constraints and sources of food insecurity vulnerability.

- **Community preparation** Good communication with communities is critical to ensuring the capture of good information. (During the assessment phase it is important to clearly inform communities that programs will not necessarily follow the assessment.)

- **Training the field team** HFSA field teams frequently include staff from partner organizations or local government representing a variety of viewpoints and expertise. Before being deployed to the field these teams should be thoroughly trained in the objectives, methodologies and tools of an HFSA. Pre-testing (validation) of specific methods and tools is often incorporated into the training of the field team.

- **Collection, input and analysis of field data** Capturing, synthesizing, and organizing of information is a key part of field work. In general at least one day for these activities is required for every day spent collecting information in the field. These steps are best built into and interspersed throughout the field work process, rather than seeking to organize and synthesize volumes of information at the end of the data collection process.

- **Preparation of the Draft HFSA Report** The HFSA report should include an executive summary, introduction, objectives & methodology, operating environment and food security context, summary of findings, proposed general recommendations, appendices which include matrices, diagrams, and maps generated during the field assessment.

- **Analysis and design workshops** Additional refinement and synthesis of information; identification of problems and their root causes; and selection of strategically focused interventions usually occurs in analysis and design workshops that follow field work. (These aspects of project design will be discussed in Chapter 2 of this manual.) Multiple stakeholders, including HFSA team members and community representatives, are typically involved in this process.

- **Finalization and Distribution of the HFSA Report** Copies of the final HFSA report should be distributed to the communities in which the survey was conducted and to participating organizations and institutions that will be implementing the recommendations.

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[8] Adapted from Project Design Handbook, CARE, 2002.

## HFSA Diagnostic Tools

### Stakeholder Analysis

As previously noted, stakeholder analysis begins prior to the HFSA, continues on through the HFSA field research, and becomes an important consideration during analysis and program design.  Four key steps to stakeholder analysis entail:

- Identifying principle stakeholders;
- Investigating their interests, potential roles, relative power and capacity to participate;
- Identifying relationships between stakeholders and considering potential for cooperation or conflict; and
- Analyzing the findings to determine how this will affect project design and success.

(See stakeholder analysis tool links at the end of this document.)

### Field Assessments

Trying to improve food insecurity in an area, without first gaining a clear understanding of the area and its people, is like driving around in a new car that has hidden problems – in the beginning it may appear to be a beautiful car, but as you start driving it will begin to give problems here and there, slowly torturing and frustrating you until eventually it just gives up and dies in the middle of rush hour traffic.

Before we start implementing a program of change, it is only common sense to assess the needs of the people who will be most affected!  An important piece of HFSA is learning how the community feels about the situation and what they think needs to be done about it. Getting the opinions of community members, while at the same time gathering and mapping the resources and limitations of the area, helps to give a holistic view of issues that need to be resolved and options for resolving them.

> ***A need can be defined as a discrepancy or gap between "what is" (the present state of affairs of a target group or area), and "what should be" (a desired state of affairs).***

To design a good food security program we need detailed information about the needs of individuals, communities and the organizations that serve them; as well as considerable information about the resources available to meet identified needs.  HFSAs are designed to help us gather that information and to provide detail on local conditions and the local food insecurity situation with enough objectivity and detail to support credible recommendations for food security program decisions.  Vulnerability to food security shocks, risks and related household coping strategies are explored in depth. HFSAs gather and analyze information at the level of the micro-region, individual communities, and individual households and information is gathered in such a way that it can be desegregated (by gender, generation, ethnic group, religious group, etc.) as needed to identify risk factors of groups or households.

To determine the information to be gathered, HFSA team members generally prepare an analytical framework for the study which defines the types of information required.  The analytical framework outlines qualitative descriptive, quantitative descriptive and analytical (causal) information to be gathered and analyzed.  Let's look at some examples of information typically gathered by HFSA teams:

- Qualitative Descriptive Information
  - Micro-region/community level
    - Physical and environmental context
    - Social, political, religious context
    - Economic activities
    - Institutions identified & their roles
  - Household level
    - Household characteristics
    - Household assets & resources (physical -- land, livestock, financial assets, etc.; human -- knowledge, skills, capacity, etc.), how they are utilized to earn income
    - How household resources are allocated within the household (by gender, age)
    - Food security, nutrition and health status
    - Access to potable water and adequate sanitation
    - Economic (livelihood) activities
    - Generationally differentiated roles and responsibilities (decision-making, power, etc.)
- Quantitative Descriptive Information (often obtained from secondary sources)
    - Population figures (or estimates by community, gender and age)
    - Nutritional status
    - Health status (for key indicators)
    - Access to potable water & adequate sanitation
    - Literacy levels
- Analytical (negative and positive casual factors that may lead to, or mitigate, food insecurity, vulnerability and marginalization)
    - Environmentally-based (floods, droughts, etc.)
    - Economically-based (macro-economic factors)
    - Socially-based (role of social networks: intra/inter-household coping strategies, intra/inter-community dynamics, role of institutions, etc.)
    - Politically-based (lack of land tenure, poor pricing policies, lack of services, etc.)
    - Conflict-derived (political, ethnic or religious rivalries, etc.)
    - Worldview beliefs--the underlying beliefs (positive and negative) that influence behavior; e.g., roles & rights of women, beliefs about the underlying causes of disease and poverty, the value of human life, etc. (see section on Holistic Community Appraisal, page 45)

The shaded boxes below provide additional detail about the qualitative descriptive, quantitative descriptive and analytical (causal) information to be gathered and analyzed by HFSA teams.

**Box 2:  Descriptive Information that may be Explored in HFSAs[9]**

| | |
|---|---|
| **Physical and Environmental** | • Types and distribution of communities in the study area<br>• Historical profiles of the communities - key events and crises<br>• Available services and infrastructure (approximate distances to each)<br>• History of natural disasters<br>• Historical trends and policies<br>• Agro-ecological conditions and seasonality<br>• Historical "shocks" and "stresses"<br>• Demographic distributions |
| **Social, Political, Religious** | • Community organization - local leadership and authority structures<br>• Household organization - who does what, who makes decisions<br>• Key external relationships - organizations, individuals and villages<br>• Ethnic and religious groups<br>• Formal and informal social networks<br>• Political systems<br>• Personal security |
| **Economic Activities** | • Major and minor livelihood strategies (and changes over time)<br>• Sources of income<br>• Farm and off-farm employment<br>• Seasonal and permanent migration |
| **Institutional Analysis** | • Existing institutions working in the area (public, NGOs, CBOs, religious, trade and labor associations, industry, etc.)<br>• Nature of institutional programming and strategic plans<br>• Interest in collaboration<br>• Comparative advantages, SWOT analysis<br>• Relations with governments and communities<br>• Past external interventions and results |
| **Quantitative Indicators** | • Health and disease<br>• Nutritional status<br>• Access to water and sanitation<br>• Access to infrastructure, public and productive |
| **Social Differentiation** | • Levels of wealth and poverty<br>• Livelihood profiles and categories<br>• Social mapping |

**Box 3:  Exploring Food Production and General Consumption Patterns**

| |
|---|
| Key foods consumed and consumption patterns throughout the year (m/f refers to the need to explicitly evaluate male/female differences)<br><br>• Production patterns of food throughout the year  (m/f)<br>• Differences within the village in terms of food production and consumption (geographic and/or by social group)<br>• Characteristics of average, good and poor food years (production/consumption)<br>• Distribution of average, good and poor years over time<br>• Food production systems (m/f) - investment in and problems with |

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[9] Adapted from CARE Household Livelihood Security Assessments, A Toolkit for Practitioners.  July 2002.

**Box 4: Exploring Coping Strategies in Times of Crisis & Constraints to Increased Food Security (Food Availability, Access and Utilization)**

- Food consumption changes in times of crisis (m/f)
- Religious coping strategies (coping with physical & spiritual food insecurity):
  - Prayer, ceremonies, sacrifices etc. (to God, gods, deities, ancestors, etc.)
  - Assistance by local/national/international religious groups to those in need, etc.
- Social coping practices including:
  - Inter-household food sharing arrangements (transfers between homes based on kinship relationships and social norms guiding food sharing)
  - Intra-household food sharing arrangements between males & females (patterns of food allocation within households, with a particular focus on gender differences and the sources of these differences)
- Religious beliefs and practices that have a potential negative effect (local perceptions, m/f )
- Social values and practices that have a potential negative effect (local perceptions, m/f)
- Remittances from migrants - availability and use
- Income sources (m/f) and household differences within the village
- Income uses (m/f) and household differences within the village
- Food production versus food purchasing throughout the year
- Types, sources and uses of credit (m/f)
- Key maternal and child health concerns
- Sources of health care for maternal and child health problems
- Perceptions of causality and treatment of major maternal and child health concerns
- Allocation of resources to deal with health concerns

FH recommends a combination of two methodologies for gathering information during the field assessment portion of an HFSA.  The first is *Rapid Rural Appraisal (RRA)*, the second is *Holistic Community Appraisal (HCA)* as discussed briefly below and detailed in Sections 1.4 and 1.5 of this manual.

HFSAs involve an informal, rapid, exploratory study of a specified geographical area to establish an 'initial understanding' of local conditions, problems and characteristics.  It is best therefore that HFSA research be carried out by a food security team comprised of members drawn from a variety of appropriate disciplines. Teams are ideally comprised of some members with relevant technical backgrounds such as agriculture, natural resource management, health, water and sanitation; and others with social science skills such as sociologists, anthropologists, and marketing researchers.  The varying perspectives of the HFSA research team members will provide a more in-depth and balanced perspective by looking at food insecurity from both a technical perspective and from the perspective of human society and individual interactions within society as they relate to food insecurity.  It is also recommended that both men and women be included within the research team to take advantage of situations associated with researcher gender and to gain different gender-related insights.

HFSAs differ from traditional RRAs in that they seek to explore not only physical and social, but also spiritual dimensions of community life that may have positive or negative impacts on transformational development.  HCA methodologies are therefore used within HFSAs to provide information and analysis concerned with whole people -- that is to say, the often interdependent and interrelated physical, social, emotional, spiritual aspects of people; and their relationships with God, other people, and the whole of creation.  By using HCA methodologies, HFSAs gather important information and data from communities that is often missed during other participatory learning approaches (RRA, PRA, etc.) because of a blind spot in the modern worldview which separates the

material and spiritual realms and takes for granted that what happens in one realm has no impact in the other.[10]

Employing RRA and HCA methodologies, HFSAs collect information using a diverse set of tools and techniques that facilitate the participation of, and input by, community members.  To the extent possible, field assessment team members should endeavor to see the problems of food insecurity through the eyes of the community members.  The attitude of team members throughout the process should be one of listening, not lecturing; probing rather than superficial; and unimposing rather than imposing.  The team should take special care to seek out those with the least "voice" in the community and to ensure that their concerns and perspectives are heard.

Conducting a HFSA field assessment typically requires only a short time to complete (5-7 days) and makes use of a wide variety of informal data collection procedures common to both RRA and HCA including:

- Semi-Structured Interview (SSI);
- Mapping (Conventional and Participatory)
- Transect Walks;
- Venn Diagram;
- Calendars;
- Wealth Ranking;
- Matrices; and
- Timelines and Trend Analysis

Caution: In practice, a HFSA is often the last study conducted within a community (or group of communities) prior to submission of a food security proposal to a donor.  Given that reality, it is important to recognize that additional and more in-depth study of communities and the food security environment is typically required throughout the various stages of the program lifecycle to ensure effective program design and implementation.

It is important to briefly mention an alternative to traditional approaches to community assessment, known as *Appreciative Inquiry (AI)*, which is increasingly gaining popularity.  AI differs philosophically from standard community assessments in that, rather than analyzing what a community lacks or what hinders development (a problem-based approach); AI begins with the discovery of what is working well and then, through community member participation and involvement, new initiatives for success are formulated.  These new initiatives become inspiring in themselves as they focus on the community's current successful efforts.  AI is not about changing people, instead, it engages community members who become involved in building the kinds of communities they want to live in.  While FH currently promotes the use of the HFSA approach described above, given many appealing aspects of the AI approach it is recognized that some fields may desire to explore and test AI, or a modification of this approach, for possible use in future food security programming.   For more about AI refer to Section 1.6 of this manual.

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[10] World Vision Staff Working Paper #21, *Introducing the Spiritual Dimension Into Participatory Community Appraisals- Going Beyond Physical Needs in Transformational Development* by Bryant L. Myers and Bruce Bradshaw, May 1996.

## The HFSA Report

The HFSA report should be prepared immediately after concluding the field assessment. To assist with the report write-up, the team leader delegates to each team member a portion of the report to be written.  The HFSA report should:

1. Identify the most food-insecure and marginalized groups in the survey area;
2. Describe the general operating environment (the social, political, economic and environmental factors that can influence the nature of a problem and its underlying causes which may have a positive or negative effect on project success);
3. Describe the causes and magnitude of the food insecurity situation;
4. Describe the major constraints to reducing food insecurity;
5. Describe the major opportunities for improving food security; and
6. Recommend interventions for reducing food insecurity or building upon opportunities.

### Suggested Outline for HFSA Reports

The HFSA report should include an executive summary, introduction, objectives and methodology, operating environment and food security context, summary of findings, recommendations, and appendices.

1. Executive Summary: Provides a succinct synopsis of the main issues identified in the full report (2-3 pages).

2. Introduction: Describes the overall purpose and context for the assessment.

3. Objectives & Methodology: Introduces specific objectives of the HFSA and the methodology used to conduct the assessment.  Describing the methodology used, including the types of instruments used to gather information, is important because it supports the validity of the results.

4. Operating Environment and Food Security Context:  Information from this section is taken from the secondary data review as well as the information gathered from the field assessment. Contextual descriptions include: historical profiles of communities; types and distribution of communities within the study area; population information; available public and productive services and infrastructure (including access to water and sanitation, irrigation systems, etc.); history of natural disasters; shocks and stresses; agro-ecological conditions; overview of political system and environment, health and nutritional status, gender dynamics, social and religious beliefs and practices, food consumption patterns, food security vulnerabilities and coping strategies; etc.

5. Summary of Findings:  The findings identify and analyze the major food security risks, vulnerabilities, constraints and opportunities within the study area – particularly with regard to those groups that are most vulnerable and marginalized.  Analysis is provided regarding types of livelihood strategies in which individuals and households are engaged; their human, social, political, natural, physical and financial assets; and how institutions and organizations interact with and influence livelihood options.  Poverty and its impacts on access to resources, livelihood options and increased vulnerability is analyzed – including analysis of the relationship between poverty, vulnerability and gender;

social/religious beliefs and practices; policy and governance.  Analysis of opportunities should explore potential options for: increasing or retaining productive assets at the household level; expanding alternative economic activities; stabilizing markets during food shortages; devising appropriate interventions in conflict; and advocacy campaigns (for policy change, better governance, worldview changes that promote *shalom*[11], etc.).  In USAID Title II programs, findings should also specifically analyze options for the appropriate use of food commodities within the set of opportunities identified for reducing food insecurity.

6. Recommendations*:*  The HFSA team, combining the various areas of expertise of its members to formulate possible solutions, should derive a set of intervention recommendations to address important constraints and to build upon opportunities identified during the HFSA.  Recommendations should address both short-term interventions to address immediate needs and causes of food and livelihood insecurity; and longer-term interventions required to address more complex causes of food insecurity (root causes of poverty, human rights violations, poor governance, etc.).  Interventions may be targeted at helping to enhance or sustain food security through expanding economic alternatives and livelihood options (on-farm and/or off-farm); increasing productivity; improving and stabilizing markets; strengthening local empowerment and coping strategies; improving productive infrastructure; mitigating risks and vulnerabilities; conducting appropriate advocacy campaigns; etc.  While it is helpful for the team to prioritize interventions, recommendations should cover a wide range of needed interventions from which FH, its partners, communities and other stakeholders may prioritize and select interventions based upon their organizational strengths, mandates, resources, etc.

7. Appendices*:* The HFSA team should append to the report matrices, diagrams, maps and other summarized documentation generated during the field assessment that may aid in program design and implementation.

After the team completes a first draft of the HFSA report, additional refinement and synthesis of information, identification of problems and their root causes, and selection of strategically-focused interventions usually occurs in the context of analysis and design workshops that follow field work.  (These aspects of project design will be discussed in Chapter 2 of this manual.)  Multiple stakeholders, including HFSA team members and community representatives, are typically involved in these workshops.

Copies of the final HFSA report should be distributed to the communities in which the survey was conducted and to participating organizations and institutions that will be implementing the recommendations.

In summary, HFSA is used to:
- Rapidly identify food security problems and underlying causes;
- Understand and analyze the situation in its geographic, social, political, economic, cultural and spiritual context;

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[11] The Hebrew word *shalom*, is best translated as "wholeness" or "completeness" and includes the idea of complete health, peace, welfare, safety, soundness, tranquility, prosperity, perfection, fullness, rest, harmony, and the absence of agitation or discord.

- Identify communities, households and/or groups most vulnerable to food insecurity and target food security interventions accordingly;
- Understand the aspirations and priorities of local people;
- Identify opportunities, capacities and resources;
- Identify stakeholders and explore various stakeholder interests;
- Make decisions regarding food security program feasibility;
- Establish priorities for addressing food insecurity effectively; and
- Document in writing the assessment findings and recommendations for the communities, FH, and partnering organizations and institutions.

## Associated Tools

### Stakeholder Analysis Tools

Care's Project Design Handbook provides an excellent description of the stakeholder analysis methodology and related tools, pgs. 36-38.  Link to this document on CD Website: http://www.kcenter.com/care/dme/

*IFAD Toolkit for Practitioners, Gender and Poverty Targeting in Market Linkage Operations* (2002), Part 2 -- Stakeholder Analysis Tools, pgs. 111-118 (2002) Link to this document on CD Web:http://www.ifad.org/gender/tools/gender/Toolkit.pdf

### Rapid and Participatory Rural Appraisal Tools

See text and links in Section 1.4 of this manual.

### Holistic Community Appraisal (HCA)

See text and links in Section 1.5 of this manual.

## Acknowledgements & Resources

CARE,  *Project Design Handbook* Link to this manual on CD  Website: http://www.kcenter.com/care/dme/

CARE,  *Livelihood Security Assessments, A Toolkit for Practitioners*  Link to this manual on CD  Website:  http://www.kcenter.com/phls/pubs.htm#DMEDocs

World Vision *Learning through Evaluation with Accountability and Planning (LEAP),* Edition 1.0 www.transformational-development.org

MEASURE Evaluation Website www.cpc.unc.edu/measure/

Networklearning.org www.networklearning.org

Child Survival Technical Support Website, www.childsurvival.com

Catholic Relief Services *Rapid Rural Response Appraisal & Participatory Rural Appraisal (RRA/PRA) Manual.* Freudenberger, K. (1999) http://www.crs.org/publications/pdf/Gen1199_e.pdf

Appreciative Inquiry Website http://www.appreciative-inquiry.org/

Community Toolbox www. http://ctb.ku.edu/about/en/index.jsp

Northwest Medical Teams Program Lifecycle Manual -- Draft (2005)

# 1.4  RAPID & PARTICIPATORY RURAL APPRAISAL METHODS

## Description

Rapid Rural Appraisal (RRA) is a multidisciplinary team social science approach that makes use of simple, non-standard methods and the knowledge of local people to quickly elicit, analyze and evaluate information about rural life and rural resources that are of relevance for taking action.  Information is collected using a diverse set of tools and techniques that facilitate the participation of community members.  RRAs typically last from 5-7 days.  The focus of an RRA is generally on gathering information quickly while ensuring that the information is as rich and accurate as possible.  The main output of an RRA is generally a report that summarizes findings.

Participatory Rural Appraisal (PRA), which evolved from RRA, is typically an extended process, that can last for months or years, which emphasizes empowerment of local people.  In PRA outsiders act mainly as facilitators and local people assume an active role in analysis of problems and identifying and implementing solutions to solve them.  The emphasis in PRA is often not so much on the information as it is on the process and seeking ways to involve the community in planning and decision making.

RRA and PRA methods are used:
- To ascertain needs (including "felt needs");
- To improve understanding of the interrelation between technical, social, spiritual and environmental factors within a community or group of communities;
- To improve understanding of community history; of human and natural resources within communities;
- To establish priorities for development activities (including food security activities);
- As part of program feasibility studies;
- Within the implementation phase of programs;
- Within the scope of monitoring and evaluation (M&E) of programs;
- For studies of specific thematic topics;
- In conjunction with quantitative surveys (baseline, KPCs, etc.); and
- To identify conflicting interests and priorities between groups.

## Introduction

### Rapid Rural Appraisal

RRA can be defined as a systematic, semi-structured activity conducted on-site by a multidisciplinary team with the aim of quickly and efficiently acquiring new information and hypotheses about rural life and resources.[12]  In RRA, a multidisciplinary team makes use of simple non-standard methods and the knowledge of the local people to quickly elicit, analyze and evaluate information and hypotheses about rural life and rural resources that are of relevance for taking action.  RRA techniques are an alternative to more expensive and time-consuming conventional survey methods.  It provides a

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[12] Schönhuth, Uwe Kievelitz, 1994.

relatively rapid and action-oriented assessment of local knowledge, needs and potentials.  RRAs may also be used in conjunction with more conventional survey methods to provide information that would not typically be captured using conventional methodologies.

## History of Rapid Rural Appraisal

In the late 1970s, dissatisfaction with the cost and results of long-term "baseline surveys", as well of unstructured and superficial short-term studies (sometimes referred to as "rural development tourism") prompted a search for additional better and more cost-effective methods of investigation.  In 1981, Michael Collinson described a methodology in which it was possible to identify agricultural research priorities within a single week.  While the "establishment" was initially skeptical of such radically new methods, acceptance of the approach grew following workshops on the new approach at the Institute of Development Studies in Sussex in the late 1970s, and following articles by Chambers and other researchers in the early 1980s, that laid the theoretical groundwork for the new methodology.

A core concept of RRA is that research should be carried out not by individuals, but by a multidisciplinary research team.  It may be comprised of scientists, agricultural extension workers, doctors, engineers, community health workers, project staff, clergy, civil servants, etc.  It is also recommended that both men and women be included on the research team to take advantage of situations associated with researcher gender and to gain different gender-related insights.

Typically the team is broken up into groups of two or three team members to do the actual investigative work.  An interesting characteristic of RRA methodology is that teams may be changed on a daily basis if appropriate in order to maximize the benefits from having teams with different specialties and backgrounds involved in various aspects of the study.  The team draws upon a variety of methods for collecting and analyzing data that may include semi-structured interviews, direct observation, mapping and modeling, etc.  An important characteristic of the methodology is employing participatory techniques that help the team to assess needs, preferences and attitudes of local people; and to tap into local knowledge.

## The Emergence of Participatory Rural Appraisal

Since the early 1980s, a variety of institutes, research centers and development agencies have used and modified key concepts of RRA.  In 1988 and 1989, RRA was modified in Kenya and India to produce village resource management plans and "rapid catchment analysis".   The new approach was termed "Participatory Rural Appraisal" (PRA) and it began to spread rapidly, mainly from India, to countries around the world.

What made PRA so radically different from RRA was essentially a new way of thinking and behaving, a reversal if you will of roles.  RRA essentially elicits or extracts information from communities; in RRA analysis and utilization of the results remain largely in the hands of outside experts.  In contrast, in PRA data collection and analysis are undertaken by local people, with outsiders facilitating rather than controlling. PRA is seen as an approach for shared learning between local people and outsiders.  Key differences between RRA and PRA are summarized in Figure 9.  The summary is helpful for selecting the "right tool for the right job."

**Figure 9:  Key Differences between RRA and PRA.** [13]

| RRA | | PRA |
|---|---|---|
| | *RRA* | *PRA* |
| *Inform project design, gather baseline information, monitor and evaluate* | **Purpose** | *Capacity building for improved decision making at community level, situational analysis, planning and monitoring by community* |
| *Multi-disciplinary team of staff and specialists* | **Team** | *Team composed of villagers, sometimes facilitated by staff person, that works with larger community* |
| *Limited number of representative sites* | **Sites** | *Communities where project activities will take place* |
| *Discrete studies, usually lasting 5-7 days* | **Time Period** | *Ongoing throughout the life of project. Usually begins with training and initial situational analysis (appx 10 days) leading to Community Action Plan* |
| *The range of tools and techniques presented below (and others as appropriate)* | **Tools and Techniques** | *The range of tools and techniques presented below (and others as appropriate)* |
| *Comprehensive, well written report that captures the depth and complexity of information obtained in the study* | **Documentation** | *Village Log Book with notes of principal findings, activities, and Community Action Plan* |

## Key Concepts shared by RRA and PRA

- Learning With Local People Participation:  Local people's input into RRA and PRA activities is essential to their value as research and planning methods. Learning is done from, with, and through members of the local community.  To the extent possible the team should seek to see the problems "through the eyes of the community members".  The investigative instruments are employed together with residents of the community, and in some cases, by the community members themselves.  The teams listen and seek to be taught by local community members.

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[13] Adapted from CRS RRA/PRA Manual.

- Teamwork**:**  To the extent that the validity of RRA and PRA data relies on informal interaction and brainstorming among those involved, they are best implemented by a team that includes local people with perspective and knowledge of the area's conditions, traditions, and social structure and either nationals or expatriates with a complementary mix of disciplinary backgrounds and experience. A well-balanced team will represent the diversity of socioeconomic, cultural, gender, and generational perspectives.
- Flexibility: RRA and PRA do not provide blueprints for their practitioners. The combination of techniques that is appropriate in a particular development context will be determined by variables such as the size and skill mix of the PRA team, the time and resources available, and the topic and location of the work.
- Optimal ignorance:  To be efficient in terms of both time and money, RRA and PRA methodologies seek to gather just enough information to make the necessary recommendations and decisions.  Teams avoid unnecessary precision when collecting and analyzing data.  Study and analysis are conducted only to the extent that they are required in order to ascertain needs or identify necessary activity.
- Triangulation:  RRA and PRA work with qualitative data. To ensure that information is valid and reliable, teams follow the rule of thumb that at least three sources must be consulted or techniques must be used to investigate the same topics.

## The RRA/PRA Tool Kit

There are a wide variety of methods and tools available to obtain information within RRA and PRA methodologies.  While there are a number of core techniques that are regularly used by most practitioners, the list of techniques is constantly expanding as practitioners develop additional creative ways to gather and analyze information.  Table 2 below lists a number of the more commonly used tools, a brief description of each, and examples of types of issues that may be explored using each tool.

**Table 2:  RRA/PRA Tools**

| Tool | Description of Tool | Some Issues That Can Be Explored Using The Tool |
|---|---|---|
| **Semi-Structured Interview (SSI)** | Semi-structured interviewing (SSI) is one of the main tools used in RRA/PRAs.  It is a form of guided interviewing where only some of the questions are predetermined.  SSIs do not use a formal questionnaire but at most a checklist of questions as a flexible guide.  Interviewers prepare a list of topics and questions rather than a fixed questionnaire and many questions will be formulated during the interview (as in a journalistic interview).  If it becomes apparent during the interview that some questions are irrelevant, they can be skipped.  Questions are usually determined by 1) the interviewee's responses, 2) the use of ranking methods, 3) observations made by the RRA/PRA team, and 4) the team's background and experience.  SSI interviews are held with a) individuals for representative information,  b) key informants for specialized information (e.g., midwives on birth complications), and c) groups for general community-level information.  Focus groups are frequently used to discuss a specific topic in detail. | ▪ Virtually any topic can be explored through SSIs over a reasonable sample of the population including specific quantitative and qualitative information and information about values, attitudes and beliefs.<br>▪ SSI is a particularly good tool for probing for what is not known and for providing reasons behind simple answers.<br>▪ SSI is also useful for verifying information gathered in group activities, with an individual family, or with an individual family member. |

| Tool | Description of Tool | Some Issues That Can Be Explored Using The Tool |
|------|-------------------|------------------------------------------------|
| **Mapping** <br><br> **(Conventional and Participatory)** | Mapping is an exercise that uses spatial analysis to gather information about a range of issues and concerns.  In conventional mapping, the trained outsider draws a map of the village or territory.  In participatory mapping community members themselves do the mapping (facilitated by a variety of innovative mapping techniques).  Numerous variations  of mapping have been used in RRA/PRAs including: social mapping, resource mapping, wealth mapping, historical mapping, family resource mapping, health mapping, and interest group mapping. | ▪ To gather information about the physical characteristics of a community (infrastructure, health and education facilities, community buildings, religious sites, etc. <br> ▪ To categorize families by their food security levels <br> ▪ To gain understanding of norms, practices and issues relating to resources (natural, financial, etc.) <br> ▪ To gather information about relations with other communities; for example, sources of credit, agricultural inputs, etc. <br> ▪ To illustrate the different perspectives (men versus women, project staff versus community members, or project participants versus non-participants) <br> ▪ To compare past and current conditions; to study how the local environment has been influenced by the community's economic or cultural needs, by population dynamics and by external phenomena |
| **Transect Walks** | The idea of a transect is to get the team out of the usual interview setting and to make use of people's powers of observation. <br><br> Walks are structured along a transect (a straight line cutting across the terrain in a specific way, such as a compass direction).  The transect walk will take the team through different areas of the community, from one outer limit of the community to another.  The purpose of walking a transect is to reduce the spatial bias that may result if the bulk of activities are carried out in the central, inhabited part of the community as conditions are frequently different at the periphery of a community. <br><br> Transect walks are sometimes used in RRA to generate maps; but are more frequently used in PRA to verify or supplement information on maps created through a participatory mapping process. <br><br> Ideally the walk is organized for a small group, so as to maximize the opportunities for interactions.  Some specific applications of transect walks include: social transects, land use transects, resource transects, and food security and nutrition transects. | ▪ Health assets and hazards <br> ▪ Village infrastructure <br> ▪ Water resources <br> ▪ Agricultural production, resources and constraints <br> ▪ Livestock management practices, livestock holdings, range use <br> ▪ Community resources (bodies of water, types of soils, forests, etc.) <br> ▪ Food storage facilities and practices <br> ▪ Differences in households and their assets <br> ▪ Land use categories, patterns & seasonal variations |
| **Venn Diagram** | Venn diagrams are used to gain insight into the community's understanding of linkages and the relationships between different systems; for example, the relationships between institutions within the community and livelihoods.  In Venn diagrams circles represent people groups and institutions.  They are drawn in such a manner as to represent the degree and type of relationship. | ▪ Roles or influence of external forces within a community including government, NGOs, credit institutions, etc. <br> ▪ Social safety nets, such as norms for sharing of food and other resources <br> ▪ Relationships with other communities and outside markets |
| **Calendars** | Seasonal calendars help us to explore seasonal constraints and opportunities, month-by-month or | ▪ To explore income patterns <br> ▪ To explore food insecurity patterns |

| Tool | Description of Tool | Some Issues That Can Be Explored Using The Tool |
|------|--------------------|-----|
| | season-by-season, throughout the year.  They help present large quantities of diverse information in a common time frame.  They also identify cycles that occur in a community on a regular basis, such as cyclical environmental problems or outside employment opportunities that lead to migration. | ▪ To learn about patterns in use of credit<br>▪ Labor patterns (constraints)<br>▪ Consumption patterns<br>▪ Incidence of disease<br>▪ Land use patterns<br>▪ Significant social and religious events<br>▪ Migration patterns<br>▪ Cyclical agricultural events (e.g. rainfall, pest, harvest and marketing patterns)<br>▪ Labor availability and demand |
| **Wealth Ranking** | Wealth ranking includes a variety of techniques in which community members rank families within their own community in terms of their relative wealth.  Wealth ranking techniques developed for PRA have proven very helpful for getting this information on relative wealth within a community, which can often be difficult or sensitive to obtain. | ▪ Leadership/wealth correlations<br>▪ Access and use of services in relation to wealth<br>▪ Social safety net correlations with wealth<br>▪ Consumption patterns<br>▪ Changes in wealth distribution over time<br>▪ Intra-family wealth patterns and decision-making |
| **Matrices** | Matrices are used to study, collect, analyze, compare and rank information on diverse subjects.  They are an important RRA/PRA tool because of their flexible and adaptable use covering a wide range of topics.  Matrix construction generates a great deal of discussion by community members while determining the variables to be included in the matrices.  Details and explanations of the variables generate important information.  Some examples of ranking matrices include pair-wise ranking and Preference Ranking (also called Direct Ranking).<br><br>Pair-wise ranking is a simple tool using a matrix to help rank a small list of items in priority order.<br><br>Direct Matrix, also called Preference Ranking, is a tool which helps people to identify what they do and do not value about a class of objects (e.g. tree species or different water purification methods).  Ranking helps to understand the reasons for local preferences.  Understanding preferences is critical for choosing appropriate and effective interventions. | ▪ Investigate preferences<br>▪ Investigate priorities<br>▪ Rank problems and opportunities<br>▪ Wealth ranking<br>▪ Facilitate decision-making among community members when faced with a variety of options |
| **Timelines and Trend Analysis** | A Timeline captures the chronology of events as recalled by local people. It is drawn as a sequential aggregate of past events. It thus provides the historical landmarks of a community, individual or institution.<br><br>Trend analysis is used to explore temporal dimensions with a focus on change. It captures changes and trends related to certain variables over different spans of time.  In other words, trend analysis is the people's account of the past and of how things have changed and hence also provides a historical perspective. | ▪ Investigate changes and trends in peoples' lives over time regarding work, illness, religious beliefs & values, family planning practices, adoption of agricultural technologies, social values, ethics of politicians, sexual habits, spread of sexually transmitted diseases, involvement of women in community decision-making processes, etc. |

Table 3 provides a helpful summary of common RRA/PRA methodologies and tools grouped into four categories: 1) group and team dynamics, 2) sampling methods, 3) interviewing and dialogue methods, and 4) visualization and diagramming methods.

**Table 3:  Methods for RRA and PRA[14]**

| Group and Team Dynamic Methods | Sampling Methods | Interviewing and Dialogue Methods | Visualization and Diagramming Methods |
|---|---|---|---|
| • Team contacts<br>• Team reviews and discussions<br>• Interview guides and checklists<br>• Rapid report writing<br>• Energizers<br>• Work sharing (taking part in local activities)<br>• Villager and shared presentations<br>• Process notes and personal diaries | • Transect walks<br>• Wealth ranking and well-being ranking<br>• Social maps<br>• Interview maps | • Semi-structured interviews<br>• Direct observation<br>• Focus groups<br>• Key informants<br>• Ethno-histories and biographies<br>• Oral histories<br>• Local stories, portraits and studies | • Mapping and modeling<br>• Social maps and wealth rankings<br>• Transects<br>• Mobility maps<br>• Seasonal calendars<br>• Daily routines and activity profiles<br>• Historical profiles<br>• Trend analyses and timelines<br>• Matrix scoring<br>• Preference or Pairwise ranking<br>• Venn diagrams<br>• Network diagrams<br>• Systems diagrams<br>• Flow diagrams<br>• Pie diagrams |

# Acknowledgements & Resources

The Catholic Relief Services, *Participatory Rural Appraisal Manual, Volume I.*  Includes detailed descriptions and illustrations of RRA/PRA tools for semi-structured interviewing, participatory mapping, transect walks, Venn diagrams, calendars, wealth ranking, historical profiles and matrices. Link to this document on CD Website: http://www.catholicrelief.org/about_us/newsroom/publications/RRA_Manual.pdf

The Catholic Relief Services, *Participatory Rural Appraisal Manual, Volume II, RRA & PRA Sectoral Case Studies.*  Stimulates creative thinking about use of RRA/PRA tools by providing examples of how some of these tools have been used in studies related to different sectors including: food security, agriculture and natural resource management, microfinance, health, and education. Link to this document on CD http://www.catholicrelief.org/about_us/newsroom/publications/RRA_Case_Studies.pdf

*Participatory Learning Approaches: Rapid Rural Appraisal, Participatory Appraisal* by Michael Schönhuth, Uwe Kievelitz.  Published by Deutsch Gesellschaft für Technische Zusammenarbeit (GTZ). 1994.  Includes a good introduction to the history of RRA/PRA and helpful descriptions of a variety of RRA/PRA tools. Link to this document on CD http://193.97.170.92/participation/download/schoenhuth-kievelitz1995.pdf

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[14] Adapted from Pretty, J.N, Guijt, I. Scoones, I. Thompson, J (1994) *A Trainer's Guide for Participatory Learning and Action*, IIED, London.

*Participatory Rapid Appraisal for Community Development:  A Training Manual Based on Experiences in the Middle East and North Africa*, Theis, Joachim and Grady and Heather M.  IIED/Save the Children Federation/The Ford Foundation, London, 1991.

*PRA Tools for Studying Urban Agriculture and Gender.*  Compiled by Henk de Zeeuw and Joanna Wilbers, Resource Center on Urban Agriculture and Forestry (RUAF), April 2004.  Includes detailed descriptions and illustrations of RRA/PRA tools for daily activity profiles, decision-making matrix, household budget, transect walk, household resource flow diagram, mobility map, trend line, critical incident analysis, ranking, and more.  Link to this document on CD http://www.ruaf.org/ruafpublications/gender_tools.pdf

*IIED Participatory Action and Learning (PLA) Website*: Participatory Learning and Action is the world's leading series on participatory learning and action approaches and methods. This website provides a forum for all those engaged in participatory work - community workers, activists and researchers - to share their experiences, conceptual reflections and methodological innovations with others. http://www.iied.org/NR/agbioliv/pla_notes/index.html

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# 1.5  HOLISTIC COMMUNITY APPRAISAL

## Description

Holistic Community Appraisal (HCA) is a modification of other participatory learning methodologies (RRA/PRA, etc.) used to explore not only physical and social, but also spiritual dimensions of community life that may have positive or negative impacts on transformational development.  It is designed to provide information and analysis concerned with whole people -- that is to say the often interdependent and interrelated physical, social, emotional, spiritual aspects of people; and their relationships with God, other people, and the whole of creation.

HCA is used to gather information and data from communities that is often missed during other participatory learning approaches (RRA, PRA, etc.) because of a blind spot in the modern worldview which separates the material and spiritual realms and takes for granted that what happens in one has no impact in the other[15].  In conducting HCAs both the worldview assumptions of the community and the development facilitator are revealed.   HCA helps both development practitioners, and the communities in which they serve, discover a biblical interpretation for what they observe in order to determine what can be done to forward the cause of God's comprehensive redemptive work within the community to bring about transformational development.

HCA uses a variety of existing participatory learning methods that have been enhanced to take into account both physical and spiritual dimensions of peoples and their cultures. It should be noted that the development of HCA tools, and even our understanding of holistic transformation is a work in progress.  As FH and other Christian organizations increasingly become aware of, and seek to overcome, the blind spot of our own modern worldview we will increasingly see the development and sharing of improved holistic assessment and planning tools.

## Introduction

For decades FH and its staff have been committed to the practice of "holistic ministry" which it defines as: *"Ministry to all needs of people (physical, spiritual, social, mental, and emotional) and to seeking reconciliation in all of a person's relationships -- with God, with other people, with oneself, and with creation."*   However, as we have sought to design and implement holistic programs we have become increasingly aware that many of our "tools" used for assessment, design and implementation too often fail to provide information critical to holistic program design; even more, they sometimes work against our efforts to design holistic programs.  One set of the tools FH staff have noted as particularly lacking are those we commonly use for community appraisals.

One might reasonably ask, "Why there are so few methodologies and tools available to assist staff in conducting HCAs?"  A possible answer to that question postulated by Bryant L. Meyers and Bruce Bradshaw argues that the modern worldview contains an important "*blind spot"* which is highly relevant to our thinking as Christian development

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[15] World Vision Staff Working Paper #21, *Introducing the Spiritual Dimension Into Participatory Community Appraisals - Going Beyond Physical Needs in Transformational Development* by Bryant L. Myers and Bruce Bradshaw, May 1996.

practitioners.[16]  They contend that the modern worldview separates the material and spiritual realms and takes for granted that what happens in one realm has no impact in the other and that, because we as development practitioners are products of Western development theory and training, we also may unintentionally reflect this bias in favor of the material and physical, as may the development tools we develop and use.

Before we explore the blind spot of the western/modern worldview further, let's pause a moment to define the term "worldview" and consider how a worldview works.  In his book Discipling Nations – The Power of Truth to Transform Cultures, Darrow Miller defines worldview as follows:

*A worldview is a set of assumptions held consciously or unconsciously in faith about the basic makeup of the world and how the world works[17].*

As for how a worldview works, Miller describes it this way:

*Jesus told His listerners, "he who has ears to hear, let him hear."  Changing the metaphor, a worldview affects what we see, not what there is to be seen.  Rose-colored glasses portray a different world than amber-tinted spectacles.  In the dark, night vision goggles will reveal more than sun glasses.  All of us wear a set of lenses in our minds, but few of us are aware of their presence.*

Miller further observes that, *"Worldviews do not stay in dusty pages of the obscure tomes of a professor's library.  They are diffused across oceans, through societies and over the centuries, shaping individuals, cultures, nations and the flow of history."*  He notes that worldview ideas penetrate into virtually every sphere of life, shaping the values, social structures and institutions of a culture and become institutionalized in a society's laws, politics and social and economic structures.    What does this have to do with transformational development?  Miller contends, *"Nearly everything.  The fundamental principles of a culture, the story it accepts as true, its people's dreams, ideals and vision, provide the foundation for its development."*  Miller goes on to encourage development workers to examine not only the worldviews of the communities where they serve, but also their own worldviews.  He contends that the worldviews we hold will shape not only our answers to questions such as, "what is development" and "what makes Christian development work Christian"; they also will ultimately determine the problems we identify and the kinds of programs we implement.  In short Miller notes, *"Ideas have consequences, especially those centering on worldview."*

Now, let's return to our discussion of the blind spot of the modern worldview.  Meyers and Bradshaw illustrate the modern blind spot by comparing the modern/western worldview with the worldview of traditional cultures (Figure 10).

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[16] World Vision Staff Working Paper #21, *Introducing the Spiritual Dimension Into Participatory Community Appraisals - Going Beyond Physical Needs in Transformational Development* by Bryant L. Myers and Bruce Bradshaw, May 1996.
[17] *Discipling Nations – The Power of Truth to Transform Cultures.  Darrow L. Miller.  YWAM Publishing. 2001.*

**Figure 10:  Worldview Comparison**

| Modern/Western Worldview | Traditional Worldview |
|---|---|
| *Spiritual Realm*<br>God, angels, demons | *Spiritual Realm*<br>Supreme Being or force |
| *The Middle*<br>(The Blind Spot of the modern/western worldview) | *The Middle*<br>Spirits, ancestors, deceased saints, manna, baraka, magic, witchcraft, sorcery, etc.<br>Location of causality |
| *Physical World*<br>People, animals, plants, minerals<br>Location of causality | *Physical World*<br>People, animals, plants, minerals |

Note that development workers trained with a modern worldview tend to identify causes of problems in the physical world.  Bad health is the result germs, poor sanitation practices, and poor nutrition.  Poor agricultural production is the result of poor soil, lack of improved seeds, and poor farming practices.  A particular change in the physical world is caused by some other part of the physical world.  For most traditional people however, the cause of things in the material/physical world is found in the middle level of their worldview.  The causes of health, sickness, wealth, poverty, success and misfortunes are frequently attributed to spiritual beings such as spirits, ancestors, demons, magic, etc.  These differences in worldview are not mere speculation, but are well documented in anthropological and development literature (see Box 5).

## Transformational Development and the Importance of Understanding the Spiritual Realm

Meyers and Bradshaw reported in 1996 that research by World Vision had uncovered several ways in which ignorance of people's traditional worldviews led to faulty development.  Among them they noted:

1. Rejection of improved practices – because traditional people are sometimes more concerned about spiritual causes than they are with physical results (see Box 6).

**Box 5:  Worldview in Anthropological and Development Literature[18]**

In Swaziland, the concepts of purity and contamination appear central in diarrheal disease. Of two major forms of serious child diarrhea, kuhabula is believed to be caused by contamination when a ritually unprotected child inhales dangerous medicinal vapors; and *umphezulu* results from the exposure of the pregnant mother to mystical environmental contaminants. One less common form of *umphezulu* is due to a type of sorcery that relies on physical contact--a type of contamination--of a pregnant women with deliberately placed harmful medicines. In all cases of *umphezulu*, the immediate cause of the diarrhea is in utero contamination of the child due to circumstances affecting its mother (Green 1985: 280-1). Thus social disharmony may be causally involved in diarrhea but even so it is mediated by a process of contamination.

Among the Tswana of South Africa, social harmony and sorcery seem to be of fundamental concern. It is interesting to note that the Tswana associate serious diarrheal illness with the concept of an "intestinal snake" called *kokwana*. Although *kokwana* resembles the *nyoka* concept of central Mozambique in some respects, Booyens (1989:11) reports, "...it is said that the snake, 'sent' to the child through witchcraft, 'eats' the child's food and the child itself." This and other evidence in Booyens' report suggest that social harmony/sorcery may be central, although pollution or contamination concepts also seem important.

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[18] Green, E.C., A. Jurg, and A. Dgedge, "The Snake in the Stomach: Child Diarrhea in Central Mozambique." Medical Anthropology Quarterly Vol. 8, no. 1, 1994, pp. 4-24.

2.  Misunderstanding causes – attributing success of development interventions to the hidden activity of their various gods, reinforcing their traditional worldview. Alternatively, they may assume that the knowledge and technology introduced to the community by development practitioners are more powerful than their traditional gods, thereby leading the community to secularization rather than to seeing the character and activity of God and his redemptive work through Christ.

*"The bottom line"*, argue Myers and Bradshaw, *"is that transformational development that addresses issues of water, health, economics, etc., carries a spiritual message where we intend it or not.  People with traditional worldviews will always see their world in spiritual terms."*

## A Case for Holistic Community Appraisal

As Christian promoters of transformational development, we must learn to present new ideas and practices in ways that make sense within the traditional worldview of the communities with which we work.  At the same time, we must avoid the traps of misunderstood causes by either reinforcing the existing worldview, or replacing the traditional worldview with a western secular worldview.  Instead, we must seek to ensure that both the development practitioners, and the communities in which they serve, discover a biblical interpretation for what they observe in order to determine what can be done to forward the cause of God's comprehensive redemptive work within the community to bring about transformational development.  To do this we must begin by ensuring that we have a good understanding of the worldview assumptions within the communities we serve.

**Box 6:  Rejection of Improved Practices[19]**

Agriculturalists from a Christian organization introduced agricultural innovations to increase grain yields in a rural African community.  Because the village farmers assumed that all agricultural innovations had to have spiritual causes, they were more concerned about the spiritual causes than they were about the physical results.  When they listened to the agriculturalists talk about the innovations, they did not hear anything about the spiritual basis of the innovations.  This made them nervous.

A few farmers trusted the agriculturalists and decided to accept the innovations.  Most of the rest of farmers were fearful and refused to accept the proposed agricultural improvements.  Even when they saw that the improved agricultural practices were very successful, they were reluctant to accept them.  They were afraid the spirit or power behind the innovations might be malevolent.  These village farmers continued to watch the successful farmers, hoping to learn the spiritual basis or power that had made the innovations successful.

Within a year one of the successful farmers had a son who died.  The village farmers concluded that the innovations had been successful because the farmer sacrificed his son to make the innovations work.  The result was that the village farmers rejected the project, believing it jeopardized, rather than enhanced, their survival strategy.

As previously stated, HCA is a modification of other participatory learning methodologies (RRA/PRA, etc.) used to explore not only physical and social, but also spiritual dimensions of community life that may have positive or negative impacts on

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[19] World Vision Staff Working Paper #21, *Introducing the Spiritual Dimension Into Participatory Community Appraisals - Going Beyond Physical Needs in Transformational Development* by Bryant L. Myers and Bruce Bradshaw, May 1996.

transformational development.  In the following sections we will explore some of the modifications that may be made to PRA/RRA tools to help ensure that the worldview and the spiritual realm are explored in addition to, and in relationship with, the physical realm.  HCA tools we will review include:

- Secondary Data Review;
- Direct Observation (and/or Observation Indicator Checklists);
- Semi-Structured Interviewing & Focus Groups;
- Preference Ranking and Scoring; and
- Trend Analysis Matrix.

In addition to our discussion of the tools presented below, see World Vision Staff Working Paper #21, *Introducing the Spiritual Dimension Into Participatory Community Appraisals - Going Beyond Physical Needs in Transformational Development*, click here to go to the document from your CD or download at http://www.compassion.ca/aboutcompassion/ministry_insights/PRA+Module.pdf (pgs. 26-42).  This document suggests how timelines, maps and diagrams, listening to local stories and other RRA/PRA tools may be modified and used holistically.

## Secondary Data Review

Secondary data review involves the collection and review of existing data and information relevant to the area (or topic) being studied, such as reports census data, research findings, municipal statistics, etc.  It is typically used to get an initial picture of the situation of the target group and of the social and institutional context, as well as to determine gaps and contradictions in available data, and it helps in finding a hypothesis for field study and the design of field work.

While secondary data related to spiritual life in the community is often ignored or overlooked in traditional RRA/PRA efforts, understanding the spiritual dimension of community life and its relationship with other dimensions of community life, may be enhanced by secondary data review.

Secondary data related to spiritual life may be available through a variety of secondary sources such as local religious leaders, national and regional headquarters of church denominations within the country, religious radio stations, missionaries and missionary agencies, and faith-based NGOs.

Box 7 below provides examples of secondary data that may be available related to spiritual life within a community.

**Box 7:  Examples of Secondary Data Related to Spiritual Life**

- History of the community and of church & missions activities in the community
- Efforts of local religious organizations to reduce both physical and spiritual hungers (holistic food insecurity)
- Statistics on church growth
- Statistics on religious diversity (% of population adhering to different religious beliefs)
- Churches, mosques, temples within the area
- Church denominations operating within the area
- Religious radio stations reaching the area and their coverage within a community or region; programs most listened to
- Status of Bible and literature translations into the local language & their costs

- Access of community members to Bibles (% of local families with Bibles)
- A ranking of physical, social, mental and spiritual health concerns
- Annual indicators of church response to spiritual, social, & physical health concerns (# of families counseled for child abuse issues; # of families counseled for alcohol abuse; # of poor families assisted by church, etc.)
- Annual giving to churches in the area and how those funds are used
- Church and Sunday School attendance records (for adults and children)
- Updated statistics on unreached people groups within the area
- Relative strength of prevailing worldview beliefs within the community

# Direct Observation (and/or Observation Indicator Checklists)

Direct observation is a tool that involves systematically observing objects, events, processes, relationships, or people; and recording these observations.  It is particularly useful to enrich insight into areas that are difficult to verbalize or about which people tend to verbalize the social norm rather than the behavior that they themselves actually practice.

RRA/PRA typically uses direct observation to better understand a variety of physical and social factors that impact community development.  HCA studies those issues included in a traditional RRA/PRA, but adds observations of social and spiritual health, including behaviors and practices resulting from spiritual traditions and beliefs that may have either a positive or negative on community transformation.

Illustrated below (left) are examples of areas of study in which direct observation is often used in PRAs.  The list (right) illustrates how direct observation may be used more holistically in an HCA (Box 8).

**Box 8:  Direct Observation in PRA and HCA**

| PRA | HCA |
|---|---|
| Gender Roles:  The daily workload of women and men; the role of women in household decision making; the role of women in community decision-making.  Does observed activity match the verbal information they have given? | Daily Routines in Religious Practices: Daily religious activities of women, men and children.  Visits to shrines, temples, churches, etc.  Daily religious practices in the home; before planting or livelihood activities; daily routines for religious training of children, etc.  The daily activities of men and women with regards to spiritual training (instruction, worship, prayer) of or with their children.  Does observed activity match verbal information given? |
| Daily Routines in Health and Agricultural Practices: Hand-washing or food preparation practices; latrine practices; water purification practices; land preparation or conservation practices; condition of natural resources, etc. | Weekly Religious Practices (often at places of worship): What deity is worshiped?  What are the worship practices?  Who is included (men, women, and children)?  Is there teaching, if so, who teaches whom and what are topics of teaching? |
| Wealth Observations: Types of housing, types of dress, etc. | Social & Business Relationships:<br>Observation of daily routines (including religious routines).  Observations about the interaction & behaviors of peoples of different faiths in the market place; in public meetings.  Observations about locations of homes and/or business (separations along religious boundaries).  Observable wealth differences between religious groups, or sub-groups within a religious group (caste groups for instance). |
| Physical Indicators: Observing vegetation growth that indicates soil fertility differences. | Physical Indicators: Observing locations of major religious sites -- churches, temples, statues, areas of spirit worship, sacrifice areas, etc. |

## Semi-Structured Interviewing & Focus Groups

Semi-structured interviewing (SSI) is one of the main tools used in RRA/PRA and HCA. It is a form of guided interviewing where only some of the questions are predetermined. SSI interviews do not use a formal questionnaire but at most a checklist of questions as a flexible guide.  Interviewers prepare a list of topics and questions rather than a fixed questionnaire.  In contrast to the formal survey questionnaire, many questions will be formulated during the interview (as in a journalistic interview).  If it becomes apparent during the interview that some questions are irrelevant, they can be skipped.  Questions usually come from the interviewee's response, the use of ranking methods, observations of things around, and the PRA team's own background and experience.

SSI interviews are held with:
- Individuals:  for representative information; different individuals are interviewed on the same topic (e.g., women, men, old, young, participating and non-participating farmers, etc.);
- Key informants:  for specialized information; key informants have special knowledge with others do not (e.g., midwives on birth complications);
- Groups:  for general community-level information; and
- Focus groups:  to discuss a specific topic in detail.

Because of the key role that worldview plays in shaping the lives of all people, a HCA must inquire into the basic assumptions about reality which greatly shape the beliefs and behaviors of the people with whom we serve.  Furthermore, because people with traditional worldviews will typically see the world in spiritual terms, it is imperative that HCAs inquire beyond physical/material areas of life into spiritual areas of life.  (Refer to Section 1.4 on HCAs for a better understanding of these concepts.)

How can we gain a better understanding of the worldview of those we are seeking to serve?  One way is through the use of good interview methodologies and questions.  Good interview questions in HCAs concerning the spiritual reality in which local people live can reveal a great deal about the local worldview and their understanding of cause and effect.  Good questions for inquiry into the spiritual reality in which local people live are typically open-ended questions, questions that avoid yes or no answers.

### Words of caution

Interviewers should seek to be sensitive to cultural norms and perceptions of those they are interviewing both in terms of which questions are asked, how the questions are phrased and in terms of deciding on the methodology to be used in seeking answers to sensitive questions.  While many of these questions may be explored through SSIs, other participatory tools (time/trend lines,  participatory mapping, etc.) may be better approaches for drawing out the same information and/or establishing relationships and interactions between worldview beliefs and other dimensions of community life. Common mistakes of SSI include:
- Failure to listen closely;
- Helping the interviewers to give an answer;
- Asking vague questions;
- Asking insensitive questions;
- Failure to probe, cross-check, a topic;

- Failure to judge answers (believing everything);
- Asking leading questions;
- Allowing interview to go on too long;
- Overgeneralization of findings;
- Expressing surprise or disapproval at answers given;
- Relying too much on what the well-off, the better educated, the old, and the men have to say;
- Ignoring anything that does not fit the ideas and preconceptions of the interviewer;
- Giving too much weight to answers that contain "quantitative date" (e.g., "How many goats do you own?"); and
- Incomplete note-taking.

Listed below (Box 9) are examples of questions that have been used in HCAs to explore worldview issues and local beliefs relating to cause and effect.  Note that many of these questions may be best asked in individual or key informant interviews, rather than in group interviews or focus groups given the personal nature of some of the questions.  Furthermore, in some cultures questions similar to these may be asked directly, while in others they can only be explored through very indirect questions.  **The questions below therefore are not to be regarded as "recommended wording of questions" but rather as examples of areas of questioning and probing that have provided helpful insights into various aspects of a worldview beliefs.**

**Box 9:  Examples of Questions used in HCAs**

| |
|---|
| **Worldview of Humanity** |
| - How was the universe formed? |
| - How was this world formed? |
| - How did men and women come to walk the face of this earth?  (What is the origin of man?  What is the origin of women?) |
| - What do you think is the purpose of a man's life?  (Man's purpose in life?) |
| - What do you think is the purpose of a woman's life? |
| - What is the purpose of your life? |
| - Are men and women different from animals?  If so, in what ways?  Do animals have spirits or souls? |
| - Is any race (or tribe, or clan) superior or inferior to another?  If so, why? |
| - What, if anything, happens to people when they die?  What, if anything, happens to animals when they die? |
| - Is man basically good or bad? |
| - What are the reasons that bad things happen to people?  (Probe into perceived causes of suffering & poverty) |
| **Worldview of Ultimate Reality** |
| - Describe the trends in the religious life of your community. |
| - How would you describe what you believe about God (or the gods, deities, or spirits)? |
| - Does God (the gods, dieties, or spirits interact with men and women?  If so, how? |
| - What have you taught your children about God, the gods, deities or spirits? |
| - What is the relationship between men, women and God (or the gods)? |
| - How does one please God (or the gods)? |
| - How does one know (or determine) what is true and what is not true?  (For instance, whether or not there one God, 10 gods, or no gods?  Whether it is OK to steal or whether it is wrong to steal?) |
| - What is the best source of truth in your community? |
| - Does evil exist in this world?  If so, what is the source of evil?  How does one avoid or overcome evil (or the effects of evil)? |
| - Which are stronger, the forces of good or the forces of evil? |
| - Can people communicate with their ancestors?  If they can, is it wise to do so? |

**Worldviews of Work/Wealth/Economics**
- How would you describe "wealth"? (Probe: Is wealth seen only as material, or is there a concept that it is also immaterial (such as life, liberty, intellect, ideas, moral behavior, emotions, will, time, good personal relations; a right relationship with God or the gods.)
- Describe a person you feel is "successful"   What does it mean to be successful?
- Would you describe work as a blessing or a curse?
- Why are some people poor and others rich?  (Probes for what causes poverty and views about wealth.)
- What are the most important resources you have in your community? What resources are most limited in your community? (physical, spiritual & human)
- What can a person do help ensure good crop production (probe for physical and spiritual solutions).

**Worldview of Roles & Responsibilities in Life**
- What are the roles/responsibilities of a man?  (Husband? Father? Grandfather?)
- What are the roles/responsibilities of a woman? (Wife? Mother? Grandmother?)
- What are the roles/responsibilities of children?
- What are the roles/responsibilities of community leaders?
- What are the roles/responsibilities of religious institutions (churches or other) in your community?
- What are the roles/responsibilities of the local government in your community?
- What are the roles/responsibilities of the national government in your community?
- Who is responsible for spiritual instruction of the children in your family?  In your community?

**Worldview of History & The Future**
- Do you have any ideas about what to expect for the future of this world?
- Does God (or do the gods) care about what happens to mankind?
- What is important to God (or to the gods, spirits & deities) worshipped in the area?
- Can people know what will happen in the future?  If so, who has access to this information (Priests/pastors?  Witches?  All people?)  How do they get access to this information?

**Worldview of Christian Church Leaders and Church Members (specific questions for Christian leadership in a community)**
- In what ways have you seen God at work in your community in the past few years?
- What is the role of the church within your community?
- Is there anything that your church hopes to change or achieve in your community in the coming years?  If so, describe it.
- What is the role of your church with regards to:
    o The poor in your community?
    o The suffering in your community?
    o Education within your community?
    o Community development efforts?
    o Health within your community?
- Why did Jesus die on the cross?
- How would you describe the relationship between different denominations of Christian churches within your community in general?

**Worldview of Health**
- How can a person keep healthy?
- What are the causes of illness? [Probe if needed for physical causes of illness (i.e. illness from contaminated water, poor hygiene, viral infections, etc.) and spiritual causes of illness (i.e. spells, witchcraft, sin, failure to please the gods, etc.)]
- What do you feel are the greatest physical sickness problems in your community?  Greatest spiritual sickness problems?  Mental sickness problems?  Social problems?
- What are the ways a person may be healed of an illness?
- Who in your community is capable of treating physical causes of illness?
- Who in your community is capable of treating spiritual causes of illness?
- How are spiritual causes of illness treated?

## Preference Ranking Matrix

Preference Ranking is a tool to help determine quickly the main problems or preferences of individual villagers and to enable the priorities of different individuals to be easily compared, typically through some kind of voting.  The two examples below (Boxes 10 & 11) of preference ranking are provided to show that *the preference ranking tool itself is neither secular nor holistic, rather, its value in a PRA or HCA depends upon the worldview of the PRA/HCA practitioner and the type of information that is gathered for analysis* (as discussed earlier in this Chapter).

If you browse bookstores or the internet for examples of preference ranking in PRAs you will typically find examples of use similar to the following:

**Box 10:  PRA Preference Ranking Example: Constraints To Agricultural Production**

### PRA Preference Ranking Example: Constraints To Agricultural Production

| Problem | Respondents | | | | | | Total Score | Ranking |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | | |
| Pests | 5 | 5 | 3 | 5 | 4 | 5 | 27 | a |
| Drought | 4 | 3 | 5 | 4 | 5 | 4 | 25 | b |
| Weeds | 3 | 4 | 4 | 1 | 3 | 3 | 18 | c |
| Costs of inputs | 2 | 1 | 2 | 2 | 2 | 2 | 11 | d |
| Labor shortage | 1 | 2 | 1 | 3 | 1 | 1 | 9 | e |

5 = most important, 1 = least important

The ranking tool is being used correctly; however, the nature of the problems identified and being ranked suggests a possible blind spot of PRA practitioners and an inadvertent use of PRA in a way that imposes a Western materialistic worldview on the local people. The spiritual causes of poverty are often overlooked by development academics who fail to understand how many traditional peoples see the world.  Frequently the power of the spirit world, shamans, witchcraft and their very significant contribution to making and keeping people poor is overlooked. Consider the money spent on charms and amulets for protection and time lost to feast days in an attempt to please or appease these powerful relationships, the impact of drunkenness often associated with these ceremonies on agricultural production.  Rarely will you see issues such as these broached in PRA analysis reports.

As development workers increasingly understand the blind spot in their own worldview and are sensitive and courageous enough to let the spiritual side of the community's experience and belief systems surface in the HCA process, they find that community members begin to generate lists of problems that look considerably different than those we have seen in the past (see Box 11).

The following is an example of how an HCA might result in a significantly different preference ranking matrix than did the PRA example shown above.

**Box 11: HCA Preference Ranking Example: Constraints To Agricultural Production**

| | Respondents | | | | | | Total Score | Ranking |
|---|---|---|---|---|---|---|---|---|
| **HCA Preference Ranking Example: Constraints To Agricultural Production** | | | | | | | | |
| **Problem** | **A** | **B** | **C** | **D** | **E** | **F** | **Total Score** | **Ranking** |
| Angry gods that send pests and drought that destroy crops. | 5 | 5 | 3 | 5 | 4 | 5 | 27 | a |
| Weeds | 4 | 3 | 5 | 4 | 5 | 4 | 25 | b |
| Neighbors "stealing our luck" through witchcraft (because of this, production of many farmers is low). | 3 | 4 | 4 | 1 | 3 | 3 | 18 | c |
| Costs of inputs | 2 | 1 | 2 | 2 | 2 | 2 | 11 | d |
| Labor shortage | 1 | 2 | 1 | 3 | 1 | 1 | 9 | e |

5 = most important, 1 = least important

In our two examples above you will note that the #1 problem identified through the PRA is pests, while the #1 problem identified through the HCA is angry gods who send pests and drought. While both identify pests and droughts as significant problems, the perceived root causes and potential solutions to these problems are very different. Again, note that the Preference Ranking tool has nothing to do with the differences in identification of the problems or their ranking; it is the same tool for PRA and HCA. The difference is in the mindset and skill of the PRA facilitators who have guided participants in the ranking process.

## Trend Analysis Matrix

Trend analysis is used to explore temporal dimensions with a focus on change. It captures changes and trends related to certain variables over a different spans of time. In trend analysis a whole series of variables can be included in one chart or calendar to give an overview of changes over a series of years, seasons, or months. These variables often include include: rainfall, crop sequences, labor demand, availability of paid employment, out-migration, incidence of human diseases, family planning practices, adoption of agricultural technologies, expenditure levels, involvement of women in community decision-making processes, and so on.

An often overlooked use of trend analysis is its ability to capture and analyze variables which investigate changes and trends in peoples' lives over time related to social and religious beliefs and values; as well as changes in behaviors which result from underlying beliefs and values (ethics, business practices, sexual behaviors, behaviors of children, racism, treatment of the elderly, etc.). Important events such as festivals (often of high religious or social significance) can also be included.

A trend analysis matrix is a tool to assist with discussion and analysis of changes of various parameters over time, as shown in the examples below. Effective use of trend analysis includes discussion of underlying reasons (causes) for changes and trends, and

brainstorming with participating community members about what could be done to change the negative trends and further promote positive trends.

**Table 4: Trend Analysis Matrix Example 1: Changes And Trends In Village Over Span Of Years**

| Topic | 1960 | 1970 | 1980 | 1990 | 1995 | 2000 | 2005 | 2010 |
|---|---|---|---|---|---|---|---|---|
| Population (No.) | | | | | | | | |
| Rainfall (describe) | | | | | | | | |
| Availability of firewood/trees (Points 1-10) | | | | | | | | |
| Literacy rate (Points 1-10) | | | | | | | | |
| Hunger among families (Points 1-10) | | | | | | | | |
| Use of pesticides and insecticides (Points 1-10) | | | | | | | | |
| Firewood consumption (Points 1-10) | | | | | | | | |
| Livestock holdings per family (Points 1-10) | | | | | | | | |
| Religious beliefs (describe) | | | | | | | | |
| Sexual behaviors (describe) | | | | | | | | |
| Social values (describe) | | | | | | | | |
| Spread of sexually transmitted diseases (Points 1-10) | | | | | | | | |
| Agricultural technologies (describe) | | | | | | | | |
| Ethics of political leaders (Points 1-10) | | | | | | | | |
| Involvement of women in community decision-making (describe or points) | | | | | | | | |
| Beliefs about causes of diarrhea (describe) | | | | | | | | |
| Etc. | | | | | | | | |

**Table 5: Trend Analysis Matrix Example 2. Trends Of Changes Within A Year.**

| Topic | Jan | Feb | March | April | May | June | July | Etc. |
|---|---|---|---|---|---|---|---|---|
| Incidence of diarrhea (points 1-10) | | | | | | | | |
| Availability of drinking water (points 1-10) | | | | | | | | |
| Availability of food (Points 1-10) | | | | | | | | |
| Migration out to look for jobs outside the community (describe or points) | | | | | | | | |
| Serious illnesses (describe) | | | | | | | | |
| Family earnings (Points 1-10) | | | | | | | | |
| Religious/Social festivals (describe) | | | | | | | | |
| Labor supply (Points 1-10) | | | | | | | | |
| Labor demand (Points 1-10) | | | | | | | | |
| Etc. | | | | | | | | |

## <u>Acknowledgements & Resources</u>
### <u>Books</u>

Evans, David J., R.J. Vos and K.P. Wright.  2003.  Biblical Holism and Agriculture: Cultivating our Roots.  William Carey Library.

Miller, Darrow L.  1998.  *Discipling Nations: The power of Truth to Transform Cultures***.** YWAM Publishing.

Myers, Bryant L. 1999.  *Walking with the Poor: Principles and Practices of Transformational Development.*  Orbis Books.

### <u>Internet Resources</u>

Discipling Nations Alliance – Online Course ([http://www.disciplenations.org/](http://www.disciplenations.org/)).

World Vision Staff Working Paper #21*, Introducing the Spiritual Dimension Into Participatory Community Appraisals - Going Beyond Physical Needs in Transformational Development*  Link to this document on CD   Website: [http://www.compassion.ca/aboutcompassion/ministry_insights/PRA+Module.pdf](http://www.compassion.ca/aboutcompassion/ministry_insights/PRA+Module.pdf)

The Coalition on Revival (COR) – COR documents which illustrate how to apply biblical principles to a variety of spheres of life and thought ([http://www.reformation.net/](http://www.reformation.net/)).

# 1.6  APPRECIATIVE INQUIRY

## Description

Appreciative Inquiry (AI) is an innovative tool that can be used by FH to assess food security needs and perceptions at the community level.  AI differs philosophically from standard community assessments in that, rather than analyzing what a community lacks or what hinders development (a problem-based approach); AI begins with the discovery of what is working well and then, through community member participation and involvement, new initiatives for success are formulated.  These new initiatives become inspiring in themselves as they focus on the community's current, successful efforts.  AI is about community members becoming involved in building the kinds of communities they want to live in.

## Introduction

AI is an innovative tool that can be used by FH with communities to articulate dreams and visions for the future as well as food security needs and perceptions.  AI was introduced in the mid-1980's as a new approach to influencing change.  In 1986, David L. Cooperrider challenged the action-research methodology (coined by Kurt Lewin, a German social psychologist in 1944) to affect organizational change through positive initiative.  Dr. Cooperrider's main purpose was to attempt to create a new perception in how organizations conducted research.  Through a positive approach to organizational research, he believed you could acquire valuable information which would be used to transform organizational systems.  This approach, originally applied to change in organizations, has since been expanded as an approach for inspiring and motivating positive change within communities.

*In the words of Dr. Cooperrider, AI asks us to pay special attention to "the best of the past and present" -- in order to "ignite the collective imagination of what might be."*

AI posits that looking and searching for the "problem" only creates and breeds more problems.  Rather, AI attempts to look with a fresh eye at the bigger picture.  It focuses on what is currently being done that works.  Through team participation and involvement, new initiatives for success are then formulated.  These new initiatives become inspiring in themselves as they focus on the team's current, successful efforts.  AI is not about changing people.  Instead, it engages community members in becoming involved in building the kinds of communities they want to live in.

As sited by the Philanthropic Quest International's website at http://www.appreciative-inquiry.org/AI-Chart.htm, the following list demonstrates the difference between problematic thinking and AI.

| Problematic Thinking | AI Thinking |
|---|---|
| Problems | Possibilities |
| "The glass is half empty" | "The glass is half full" |
| Problem-driven | Vision-led |
| Money | Meaning |
| Scarcity of resources | Abundance of resources |
| Critical thinking | Generative thinking |

| | |
|---|---|
| Resistance ............................................. | Energy |
| Incremental advances ........................... | Unprecedented breakthroughs |
| Token promises..................................... | Full-of-meaning commitments |
| Using others ......................................... | Collaborating with others |
| Transactions......................................... | Relations |
| Professionally-directed ......................... | Self-directed |
| Taught -- as admonitions...................... | Learned -- by example |

In the AI community, this method is described as the process of bringing two distinct actions together for one purpose. By using positive imagery in a collective forum, one is able to produce a positive and productive future for a community. Webster's Dictionary defines these terms as:

- Appreciative: having or showing a just or ready appreciation or perception; as, an appreciative audience.
- Inquiry: the act of inquiring; a seeking for information by asking questions; searching for truth, information, or knowledge through examination into facts or principles.

The AI methodology is based on the argument that a community can change its direction through positive questioning. By focusing on what is good and is working well, it motivates and inspires more positive input, resulting in the community's stakeholders pulling together to achieve greater results. This approach is a complete shift away from problematic, problem-solving thinking which most organizations use when conducting community appraisals or assessments. AI questions the systematic approach that looks for something broken,

> *Finally, brothers, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable— if anything is excellent or praiseworthy—think about such things.*
> *Philippians 4:8*

and then discusses the brokenness, thereby producing more brokenness by stirring up negativity and discord.

> *The appreciative approach involves collaborative inquiry, based on interviews and affirmative questioning, to collect and celebrate the good news stories of a community  -those stories that enhance cultural identity, spirit and vision. Appreciative inquiry is a way of seeing that is selectively attentive to - and affirming o f- the best and highest qualities in a system, a situation or another human being. Local people can use their understanding of "the best of what is" to construct a vision of what their community might be if they identify their strengths, then improve or intensify them. They achieve this goal by creating provocative propositions that challenge them to move ahead by understanding and building on their current achievements. Provocative propositions are realistic dreams: they empower a community to reach for something better, but base that empowerment on an understanding of what gives them life now.[20]*

By involving large numbers of people from various parts of a community (leaders, mothers, fathers, community groups, etc), the positive inquiry process begins. Through active interviews and discussions using affirming questions, one creates an open

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[20] Appreciative Inquiry, the Ministerial Conference on Environment and Development in Asia and the Pacific 2000, Kitakyushu, Japan, September 2000.

environment which includes imagination and innovation, a celebration of strengths and community successes.  When one focuses on past and present achievements, one is able to draw from unexplored potentials, strengths, opportunities, success stories, etc.  During these discussions, a strong, energized momentum is created to accomplish a complete change and shift in a community's direction, thereby creating the potential for a better future.

**Box 12:  An Editorial Comment on AI Versus Problem-solving Approaches**

As individuals and organizations have become increasingly familiar with AI as an approach to generating positive community change, debates have surfaced over "problem-solving" versus "AI" approaches to program design and implementation.  At the center of the debate on one hand may be the assumption stated many AI adherents that looking and searching for the "problem" only creates and breeds more problems.  This claim may be reasonably debated by many adherents of the problem-solving methodology who point to the documented success of various programs designed using the problem-solving methodology.  On the other hand, some adherents of the problem-solving methodology seem quick to dismiss AI as a positive-thinking approach that ignores real problems, despite increasingly numerous testimonies to the impact AI.

Must the two methodologies be mutually exclusive, or can they perhaps be used in combination?  Is one better than the other in all situations, or do perhaps both methodologies have their pros and cons and their place in good program design and implementation?  These are questions about which reasonable people often seem to disagree.

FH does not require fields to use one methodology or another for program planning.  Readers of this manual however will note, in later chapters, an emphasis on the problem-solving approach to program design.  The reason for this emphasis is simple; FH has considerably more experience with, and documented results from, the use of a problem-solving approach to the design of food security programs than we have from the use of AI.  Having said that, various positive aspects of the AI methodology and numerous testimonies from around the world to its success suggest that the AI methodology can be a very useful and important tool in the design and implementation of FH programs.

FH fields who wish to experiment with AI are encouraged to do so.  As with any methodology new to your team, we would suggest you to begin with a small trial, perhaps one or two small communities.  Be sure to carefully document your process, methodologies, evaluation results and lessons learned.  Also be sure to share your results with the FH Food Security Unit and regional VPs so that others may benefit from your experience.

## Steps

Taking the best of what they do, communities can use their insight to construct a vision of what they can become in the future.  Goals are created to build on current achievements.  Communities are empowered to reach for something better through an understanding of what works for them now.

AI allows room for emotional response as well as intellectual investigation, room for imagination as well as rational thought.  A successful athlete intuitively uses the appreciative approach when he visualizes breaking a record in his mind prior to breaking the record in actuality.  A successful leader intuitively uses it when she paints a picture of the community's potential to inspire people to achieve it.

The process, referred to as the "4-D Cycle," starts by carefully selecting the affirmative topic to be studied.  It has been said that people move in the direction of what they study.  The community topic that is chosen for study—the affirmative topic—must be deliberate.  The chosen topic creates the framework for collecting interview results, such as stories, best practices, and experiences.  These results then become the community's directional focus.

**Figure 11:  The "4-D Cycle"**



The four cyclical types in the 4-D Cycle are discovery, dream, design and destiny.  The following information was gleaned from the Corporation for Positive Change and IISD websites (www.positivechange.org or www.iisd.org/ai/default.htm).
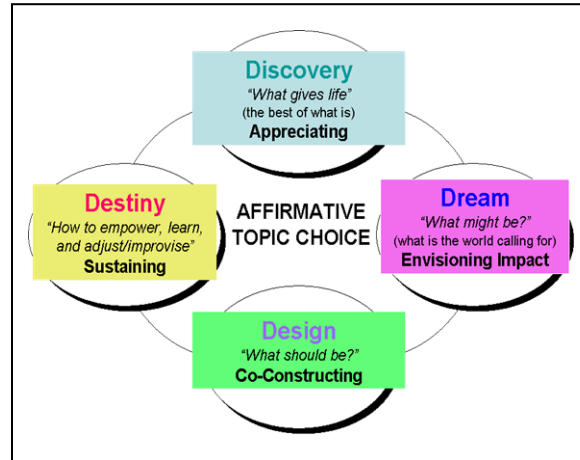
1.  *Discovery Phase.*  The primary task in this phase is to look back, by looking at the best accomplishments or experiences and times of excellence.  Working together, you define appreciative interview questions.  The questions are used to explore through producing dialogue and stories from team members, helping to bring the successful past into focus.  An open, positive environment is created where team members are able to share their experiences from within their community sphere.  Crucial to this phase is careful listening to members' responses and asking only positive, affirmative questions.  The team members then begin to investigate these successes and what made these moments possible and significant.  At this time, there is no analytical assessment of deficiencies.

    *"Human systems grow in the direction of what people study, therefore, let us all search for the true, the good, the better and the possible in human systems."* Cooperrider & Whitney

2.  *Dream Phase.*  As the team beings to look at what can be, there is an energized atmosphere created.  The members begin to see what their community could look like and how they are an active part of the success.  This phase allows them to look at the future and to dream big, outside of the communal norms, getting beyond the traditional boundaries, yet building on the previous successes.  Through this a positive, affirmative vision of the future is created.

3.  *Design Phase.*  Building on the dream phase momentum, one uses the results to reinvent the community and visualize the future.  This involves strategizing and determining how to make the dreams a reality, blending the positive past with the vision of the future.  The facilitators and team members help to identify the changes that the community needs to make in its systems, processes, roles, etc., to support the new vision.

4.  *Destiny Phase.*  This phase allows for the community to live out the design.  By this time, the momentum and creative vision for the future is at its greatest.  As the team collectively shares in the overall process, a natural outcome will be individual members working together and taking a more vested interest by re-aligning their work and continuing to be co-creators in the community's future.

The results of the design phase now come to life through strategy and commitment, propelling the community forward.

Once the process is completed, the specific affirmative topic being explored comes to an end.  However, this does not signify an end to further community exploration.  Rather, it is vital to recognize that AI is a continual cycle.  The completion of this affirmative topic naturally leads to new discoveries in other areas, thus starting the process afresh.

Bernarnd Mohr, President, The Synapse Group, Inc, and Founding Partner, Appreciative Inquiry Consulting LLC, wrote an article for the ND Learning Centre (full article available online at http://www.ndlearningcentre.com/AInutshell.html).  Mohr lists the following conditions that support AI.

While communities have applied AI in many ways, the following conditions seem to be present when it has been most effectively incorporated into a process of community learning and change:

- The community honestly acknowledges any current difficulties;
- The community culture supports participation of all voices, at all levels—with the understanding that outcomes from grassroots innovation cannot be known in advance;
- Learning and change are seen as ongoing processes, not one-time events;
- The community leaders believe in the community's capabilities and agree that accessing this "positive core" can drive learning and change; and
- The community supplies the structures and resources needed to collect/distribute "exceptional time" stories and support creative action.

## Why it Works

The Corporation for Positive Change believes success in AI's approach is partly due to respecting people through their life experiences told in story form.

> "Appreciative Inquiry works because it treats people like people, and not like machines. People are social. We create our identities and our knowledge in relation to one another. We are curious. We like to tell stories and listen to stories. We pass on our values, beliefs and wisdom in stories. We like to learn and to use what we learn to be our best. And we delight in doing well in the eyes of those we care about and respect. Appreciative Inquiry enables leaders to create natural human communities—knowledge-rich, strength-based, adaptable, learning communities."

When we bring in key stakeholders from each part of a community and allow them to be key players in affecting positive change, energy and enthusiasm are produced. Community members are given the opportunity to share their experiences, in an open environment, which is used to create a successful community.  When a sense of community is built from all levels, a mutual responsibility is created.  People want to be heard and seen as valuable participants in the success of their communities.  By sharing in the dream making, they are able to make the dreams a reality.

## Examples

The International Institute for Sustenance Development (IISD), as reported on their website (http://www.iisd.org/ai/) is applying AI at a community level in two pilot projects. Refer to the following websites for links and project updates:

- In Southern India in partnership with MYRADA, a non-governmental community working to empower the rural poor; and
- In Northern Canada, in partnership with Skownan First Nation.

Mellish and Associates list the following on their website, http://www.mellish.com.au/Resources/lizarticle.htm.

> "In Australia, we have used AI extensively in government, in the higher education sector, in schools, with community organizations and in professional service firms. Effectively, it has provided an energizing and participative dimension to complex planning, supporting structural changes, working collaboratively across business units, engaging communities and external stakeholders in matters ranging from policy development to resource allocation.
>
> Results have been achieved in terms of improved service cultures, structural realignment without industrial disputation, community renewal projects, integrated government service delivery, reduced costs of duplication and in-house competition, school-based management, resolution of cultural conflicts."

New Directions, a Bristol UK-based organizational, management and individual development company sites the following case studies on their website http://www.newdirections.uk.com/ai.htm.

**Box 13:  Case Studies**

| SITUATION | ACTION | RESULTS |
|---|---|---|
| Identifying a strategic focus and set of working values for the Criminal Justice Services team of Dundee City Social Work Department. | All team members participated in an AI process to identify their own core working values and success characteristics. This information was then processed at a management team workshop and a vision and strategy for the team was developed. | The involvement of all staff in the development of the strategic focus for the department resulted in immediate `buy-in' for the strategy. |
| Identifying developmental priorities in deeply divided and illiterate communities in Saharan West Africa. | AI was used to `give a voice' to all members of the village that enabled the production of a set of provocative propositions validated by the whole village. | A high level of commitment and enthusiasm for the development work increased its success, and a desire to do further work themselves. |
| Developing a common working philosophy in a sales region of Bayer Pharmaceuticals. | A half day workshop for the entire regional sales team was facilitated using AI to identify the participants' best practices in working and develop a common vision for the team. | A powerful image and vision statement was produced that had relevance for every team member. The Regional Manager felt that more had been achieved in the half day than at previous two-day workshops of `death by acetate!' |
| A large car repair organization wanted to improve their customer satisfaction, and get commitment from all their employees. | Representative employees from each location were trained in AI. They gathered stories of high quality service experiences from the employees in their location. The representatives then met to share their stories and develop | Employees could relate and act in accordance with the propositions because they had `lived them' at one time or another. A subsequent independent survey measured the organization's customer satisfaction at 89% of customers 100% satisfied |

| | some propositions. These were fed back to the locations, and final provocative propositions were drawn up. | (which are excellent numbers for the industry) |
|---|---|---|
| The Council of the Institute of Management Consultants was designing a change to its constitution and style. Previous meetings had been slow and divisive. | AI was used to share members' experiences of leading and participating in successful change, and create standards for their discussions and decision making. | The working session that followed exceeded the most optimistic expectations of everyone present in terms of energy and agreement. |
| Statoil, Norway's leading international oil company was restructuring its organization from a hierarchy to teams. | At the seminars for the top managers who would be leading the restructuring process (as well as being affected), AI was used to help the managers to develop visions for working in their new, collaborative organization. | In a short timeframe, the traditional rivalries and competition between functions and departments were set aside and powerful collaborative statements and images were created to focus their continuing efforts to change the culture and management of the company. |

## Acknowledgements & Resources

The following links provide more in-depth examples and resources for additional AI research.

http://www.unescap.org/mced2000/pacific/background/appinquiry.htm
http://www.appreciative-inquiry.org/
http://www.iisd.org/ai/default.htm
http://www.gervasebushe.ca/aimeaning.htm
http://www.taosinstitute.net/manuscripts/manuscripts.html
http://www.positivechange.org/appreciative_inquiry.html
http://www.managementhelp.org/commskls/appr_inq/appr_inq.htm
http://www.new-paradigm.co.uk/Appreciative.htm
http://www.atlc.org/members/resources/ai1.html
http://www.appreciative-inquiry.org/AI-Life.htm
http://www.aradford.co.uk/Pagefiles/background.htm
http://thataway.org/resources/understand/models/ai.html
http://www.ndlearningcentre.com/AInutshell.html
http://www.positivecommunitys.com/
http://www.appreciative-inquiry.org/Pos-ima.htm
http://www.newdirections.uk.com/ai.htm
http://www.mellish.com.au/Resources/lizarticle.htm

# CHAPTER 2: PROGRAM DESIGN TOOLS

## REVIEW

In Chapter 1 of this manual we:
1. Provided a framework for designing high quality food security programs that are guided by, and consistent with, FH's vision and operating principles;
2. Detailed a four-step method for Macro-targeting;
3. Described the purpose of, and steps for, conducting a HFSA; and
4. Introduced a variety of tools (RRA/PRA/HCA and AI) that may be used as part of the HFSA process.

## INTRODUCTION TO CHAPTER 2

In the following chapters we will turn our attention toward five steps of program design.

1. *Analysis of the operating environment* – examines the set of elements which together make up the setting of a program and which may have a positive or negative effect on program success; including analysis of the operating environment information gathered during micro-targeting and HFSA.
2. *Problem identification and analysis* -- provides guidance on techniques to organize and synthesize information collected during macro-targeting and HFSAs. In problem analysis we explore the problems that we hope to affect with our project and differentiate between problems, causes, and consequences.
3. *Development of the program strategy* – provides guidance for deciding which causes to address (from the many causes identified through problem analysis); developing and making choices on interventions for addressing each of the selected causes; and constructing the program hypothesis. A program strategy includes a program hypothesis and a logical framework. The logical framework details the program's strategic objectives and intermediate results and summarizes details of what the program will accomplish, how it will be accomplished, and how you know whether or not you have accomplished what you set out to accomplish.
4. *Designing a M&E system* – provides guidelines for designing the system needed to collect, analyze, report and disseminate information needed for timely decision-making and reporting throughout the life of a food security program; as well as for evaluating achievement of intermediate impacts and effects.
5. *Resource planning* – involves determining the types and amounts of resources that will be required to conduct program interventions and monitor and evaluate the results. Although a critical element and the final step in program design, resource planning is an established function of FH field budget and financial management systems; resource planning will not be covered in this manual. FH program design teams should work closely with their respective field finance offices to determine resource requirements and develop appropriate detailed budgets as part of the food security program design process.

Much of the work done in designing a food security program is typically carried out in the context of a multi-day food security analysis and design workshop comprised of multiple

stakeholders including: FH sector specialists (water, health, agriculture, etc.), HFSA team members, leaders from target communities and other key stakeholders.  The analysis and design workshop is normally realized immediately after the HFSA team completes field activities and the HFSA report.

<u>Written</u> outputs of the design team generally include:
1. Analysis of the operating environment;
2. Problem identification and analysis;
3. A program strategy (the program hypothesis and a logical framework);
4. A M&E system plan; and
5. A resource plan.

The final output of the design team is often a food security program proposal -- which may vary in form, length and content depending on donor requirements, but will normally include each of the design team outputs noted above in one form or another.  That said, depending on the complexity of the food security program, and upon donor requirements for proposals, food security program proposals may be drafted entirely by the FH field team, with assistance from the FH Food Security Unit in Washington D.C. and/or with the assistance of external consultants.

# 2.1. ANALYSIS OF THE OPERATING ENVIRONMENT

## Description

The term *operating environment* refers to the program setting and context. It includes the geographic, social, political, economic and environmental factors that influence people's lives within the program area; and all "other factors" which together make up the environment in which the program will be carried out. Other factors for instance, that have either positive or negative effects on the program, include availability of skilled human resources needed to implement a food security program (qualified program managers, engineers, health staff, etc.); institutional strengths and weaknesses of FH and its potential partners; donor interests in funding food security programs; etc. Because the operating environment is the set of building blocks on which the program is built, good program design begins with *analysis of the operating environment*. Gathering of information and initial analysis of the operating environment begins with macro-targeting and holistic food security appraisals (discussed in previous chapters) and continues throughout the various steps of program design. As we will discuss later, good analysis of the operating environment becomes particularly important during the problem analysis and intervention selection steps of program design.

## Introduction

The operating environment is like the stage of a play – it is the context within which people act out their lives and the context in which our food security programs must be relevant and effective if they are to have meaningful impact. Food insecurity does not exist in a vacuum, but rather within a system of environmental factors which often interact; that is to say, changes that affect one part of the system often affect other parts of the system. It is therefore important to consider the common of the elements of the operating environment individually and systemically in planning a food security program. Let's review briefly some of the elements of the operating environment which were discussed in considerable depth in the Holistic Food Security Appraisal section of this manual on page 67:

- People: numbers, relationships, ages, sex, trends;
- Environment: vegetation, climate, resources, trends;
- Beliefs / Practices: religious, cultural, political, social beliefs;
- Infrastructure: roads, schools, hospitals, water/sanitation, planned infrastructure;
- Human/Material resources: educational level, labor;
- Economics: wealth, distribution, source, markets, trends;
- Government: local, regional, and national political, judicial, health and educational systems; and
- Institutions: donors, NGOs, potential partners and stakeholders, etc.

Typically the analytical framework developed by the HFSA team, as well as the summary of information and preliminary analysis they provide in the HFSA report, greatly facilitates the work of the food security program design team. However, one important element of the operating environment that is not included for consideration within HFSA is the organizational capacity and the relative strengths and weaknesses of FH and other stakeholders to contribute to food security program efforts. Let's look at a tool that may help the design team with this aspect of analysis of the operating environment, called SWOT Analysis.

SWOT Analysis is a simple and effective way of identifying the **S**trengths and **W**eaknesses, and of examining the **O**pportunities and **T**hreats that organizations face. SWOT is a particularly powerful tool in that, with a little thought, organizations can uncover opportunities they are well placed to take advantage of, manage and eliminate threats that would otherwise catch them unawares.  Even more, by looking at your own organization and potential partner groups, you can craft strategies that help you improve cost efficiency and effectiveness.

## Definitions

- Strength – a resource or capacity the organization can use effectively to achieve its objectives.
- Weakness – a limitation, fault, or defect in the organization which will keep it from achieving its objectives.
- Opportunity – any favorable situation in the organization's environment.  It is usually a trend or change of some kind or an overlooked need that increases demand for an intervention and permits the organization to meet some of its long-term goals (e.g., to become a training organization).
- Threat – any unfavorable situation in the organization's environment which is potentially damaging to its strategy.  The threat may be a barrier, a constraint, or anything external that might cause problems, damage or injury.

SWOT analysis can be done in a simple brainstorming session lead by a facilitator and questions asked may be general or specific.  For example: 1) What do we do well institutionally?  2) What do we do well in terms of helping to increase household incomes?  Here are examples of some questions that you might ask when looking at a food security program.

### Strengths

- What are our advantages in terms of addressing food insecurity and implementing successful food security programs?
- What do we do well?  (in general, and in food security programs specifically)
- What resources do we have access to (human, financial, infrastructure, etc.)?
- What do other people (communities, NGOs, donors, the host government) see as our strengths?

You should not be modest with regard to strengths, but realistic. If you have difficulty with this, you should begin by writing down a list of the organization's characteristics. Some of these will hopefully be strengths.  In looking at your strengths, think about them in relation to your potential partners and other stakeholders.  Look for possible synergies.

### Weaknesses

- What could we improve?
- What do we do badly?
- What should we avoid?
- What do other people (communities, NGOS, donors, the host government) see as our weaknesses?  Do they perceive weaknesses that we do not see? Are other NGOs doing better?

It is best to be realistic with regards to weaknesses and face any unpleasant truths as soon as possible.  Identifying weaknesses early is an opportunity to look for potential collaborators with strengths we lack or may be unable to develop in a short period of time.

## Opportunities

- Where are the good opportunities facing us in food security programming?
- What are the interesting trends in food security programming?
- Where are there opportunities for innovation?

Useful opportunities can come from such things as:
- Changes in technology (e.g., new interventions like zinc supplementation or treatment for pediatric AIDS);
- Changes in funding sources on both a broad and narrow scale;
- Changes in government policy (e.g., decentralization or the launching of a micronutrient campaign);
- Changes in social patterns, lifestyle changes, etc. (e.g., people taking refugees into their homes);
- Recently-introduced innovations in the program area have been well accepted (e.g., use of small mills to process grains); and
- Local events (e.g., the opening of a new marketplace).

A useful approach to looking at opportunities is to look at your strengths and ask yourself whether these open up any opportunities.  Alternatively, look at your weaknesses and ask yourself whether you could open up opportunities by eliminating them.

## Threats

- What obstacles do we face?
- What are other PVOs/NGOs doing in the country that may overlap with services we have provided in a given area?
- Are the required specifications for our products or services changing (e.g., more rigorous M&E requirements, a greater focus on exploring international markets, etc.)?
- Is changing technology threatening our position? (e.g., your method of doing education is outdated)
- Do we have cash-flow problems?
- Can we get the skilled managers and technical people we need to expand operations?
- Do any of our weaknesses seriously threaten our ability to compete for funding or to implement an effective food security program?

Carrying out this analysis will often be enlightening - both in terms of indicating what needs to be done, and in putting problems into perspective.

SWOT analysis does not prioritize the factors generated; however a simple ranking tool as in the example below is often sufficient to assist with prioritization.  (For more sophisticated ranking tools see ranking matrices in the RRA/PRA section on page 49 of this manual.)

**Table 6:  SWOT Analysis**

|  | Ranking (1=highest, 5=lowest) |
|---|---|
| **Strengths** | |
| Good indicators | |
| Good evaluation system | |
| Well trained technical staff | |
| **Weaknesses** | |
| Poor coverage with interventions | |
| No marketing specialist on the food security team | |
| Poor monitoring system | |
| **Opportunities** | |
| Government decentralization | |
| Community organization structure | |
| New interventions in nutrition | |
| **Threats** | |
| High technical staff turnover | |
| Low resources for matching funds | |
| USAID changing priority zone | |

## **Steps**

To briefly summarize steps that form part of analysis of the operating environment:
1. Analysis of the operating environment begins with pre-program assessment activities – *micro-targeting* and *holistic food security appraisal* (HFSA).
2. HFSA includes:
    a. Stakeholder analysis;
    b. Preparation of an analytical framework for the field study which defines the types of information required, including qualitative and quantitative descriptive information on the operating environment; needs & resources; and analytical (causal) information;
    c. Field assessment (using RRA and HCA methodologies); and
    d. Initial field study findings and recommendations to the design team (usually through both oral and written reports).
3. SWOT analysis may be used to help analyze the institutional capacities of FH and its partners.  SWOT analysis may be conducted during the pre-program assessment or as a first step in program design, but should be completed prior to the "intervention selection" stage of program design, as selection of interventions may depend in part upon the capacity of FH and its partners.
4. Good analysis of the operating environment becomes particularly important during the problem analysis and intervention selection steps of program design (which will be discussed later in this manual).

## Associated Tools

Mind Tools Swat Analysis Worksheet

## Acknowledgements and Resources

***Mind Tools Website***: http://www.mindtools.com/pages/article/newTMC_05.htm

CARE, ***Project Design Handbook, July 2002.   Link to this document on CD***,
Website: http://www.kcenter.com/care/dme/.

# 2.2. PROBLEM IDENTIFICATION AND ANALYSIS

## Description

A problem is a condition, or set of conditions, that affect people in a negative way. Because the causes of problems are often complex, a process of *problem identification and analysis* is helpful in order to organize the many needs and concerns identified in the study area into a logical hierarchy of cause-and-effect relationships. By improving our understanding of a problem and its causes, we are better able to design programs to solve the problem and thus provide the greatest possible degree of impact. In short, the process of problem identification and analysis is about analyzing the situation thoroughly and accurately so that we can make good program design decisions based on that analysis.

## Introduction

Problem identification and analysis involves defining the problem and understanding why the problem exists. For instance, before we can design an effective food security program, we need to be able to answer the following questions:

- What are the major food insecurity-related problems affecting individuals and communities within the target area?
- Which of these is the key or central problem or issue?
- What are the causes and effects of this problem?

Only when we have answers to these questions can we realistically hope to determine how we and our partners can best make a significant contribution to addressing the problem.

Before we discuss specific steps in the problem identification and analysis process, consider a very simplified process of problem analysis called the "but why" technique. This simple technique begins by 1) identifying a problem and 2) then asking, "Why does this problem exist?" An answer is given, and then we ask again, "But why does (the answer) occur?" Let's look at a <u>simplified</u> example[21]:

<div align="center">

"Children fall asleep in class" (problem)

But why?

"Because they have no energy"  (cause)

But why?

"Because they don't eat breakfast" (cause)

But why?

And so on…

</div>

Note that there is not one, but many causes leading to the problem. As each cause is identified, we typically find that it is a condition brought about through another cause and effect relationship. This "stream" of cause and effect factors that leads to the core problem is sometimes referred to as a "*causal stream*". In addition to the causal link between a problem and its causes, problems themselves are causes of "*consequences*". Consequences are social, political, or economic conditions that result from a problem. Figure 12 provides a generic illustration of the causal stream. For example, the

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[21] The Community Toolbox (http://ctb.ku.edu/tools).

consequences of children falling asleep in class (the problem) may include poor performance in school, low graduation rates, a small pool of laborers with needed levels of academic preparation, lower incomes for children from poor families, etc.

**Figure 12: A Generic Example of Problem Analysis – Cause and Effect**
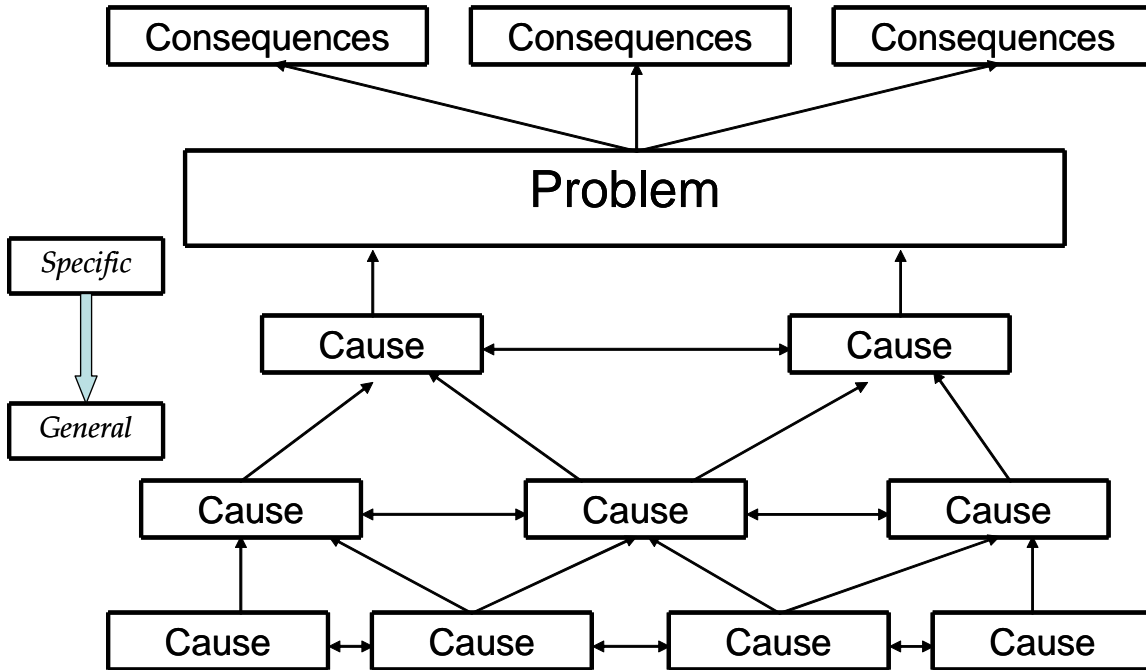


As illustrated above, the causes of problems are typically complex; causes are often linked and one cause is often the result of an underlying cause or causes. However, a good problem analysis process provides us with a means to organize the many needs and concerns identified the HFSA process into a logical hierarchy of cause-and-effect relationships; to assess the relative contributions of causal streams to the problem; to explore multiple causal interactions; and to select the factors to address through program interventions which will provide the greatest possible degree of impact.

## Steps

Step 1: Identify the problem that the program will address
Step 2: Hierarchical Problem Analysis
Step 3: Phrasing Problems, Causes and Consequences

### Step 1: Identify the problem that the program will address

The first step in problem analysis (also called causal analysis) is to identify the central problem that the program will address. The process of designing the problem in the program design phase typically begins by identifying a very generic problem. For instance, HFSAs are conducted with the generic problem of "high levels of food insecurity" in mind and data is collected to gather information about basic needs, access to resources and other factors related to food insecurity. Likewise, initial problem analysis for food security programs will often begin with the problem defined as "high levels of food insecurity". Beginning problem analysis in this way will result in a better

understanding of the major causes of "food insecurity". However, these causes themselves are often too broad to address in a single food security program, so the program design team will need to further clarify and prioritize these underlying causes before going further in the program design process, as an appropriate focus for the program is most likely to be found in the underlying causes to the larger problem of food insecurity.

To identify the problem that the program will address, it is helpful to establish a set of criteria for problem selection, for example:
- The extent to which resolving the problem (or seizing of an opportunity) will produce a significant positive change in the lives of the target group;
- The magnitude and extent of the problem (extent to which it is a serious problem and the number of people it impacts);
- The extent to which the target community identifies the problem as a priority;
- The extent to which addressing the problem falls within the mandate and vision of FH and the field's strategic plan;
- The comparative advantage and capacity of FH and its partners (corporately and at the country level) to address the problem; and
- Donor interests and availability of resources.

## Step 2: Hierarchical Problem Analysis

As we work through the problem analysis process, in most cases we find that the sequence of causes in the causal stream adheres to the following hierarchical pattern:
- The direct causes of the problem are often specific physical or social conditions;
- These conditions in turn are typically *caused* by human behaviors or systemic deficiencies;
  - Systemic deficiencies are often *caused* by low institutional capacities or underlying power dynamics;
  - Human behavior is determined primarily by people's knowledge and attitudes – though some conditions themselves may influence behavior;
- People's knowledge and attitudes, low institutional capacities and underlying power dynamics are often *caused* by worldview (beliefs).

> *Worldview can be described as a set of assumptions held consciously or unconsciously in faith about the basic makeup of the world and how the world works[22].*

This hierarchical nature of the causal stream is illustrated generically as shown in Figure 13, while Figure 14 provides a simplified example of the hierarchical causal stream.

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[22] Darrow L. Miller. *Discipling Nations, The Power of Truth to Transform Cultures* (Seattle, Washington: YWAM Publishing, 1998).

**Figure 13:  Levels in Problem Analysis**
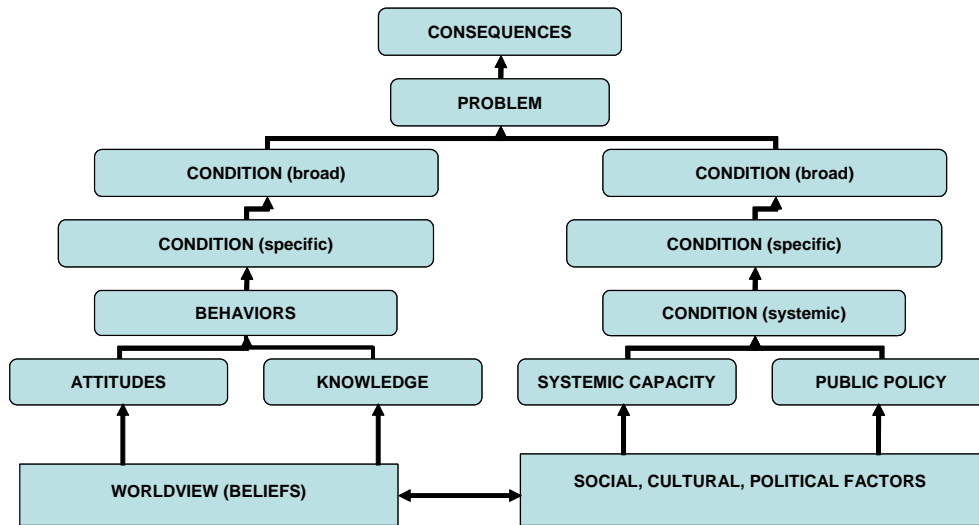


**Figure 14:  Simplified Example of Levels in Problem Analysis**
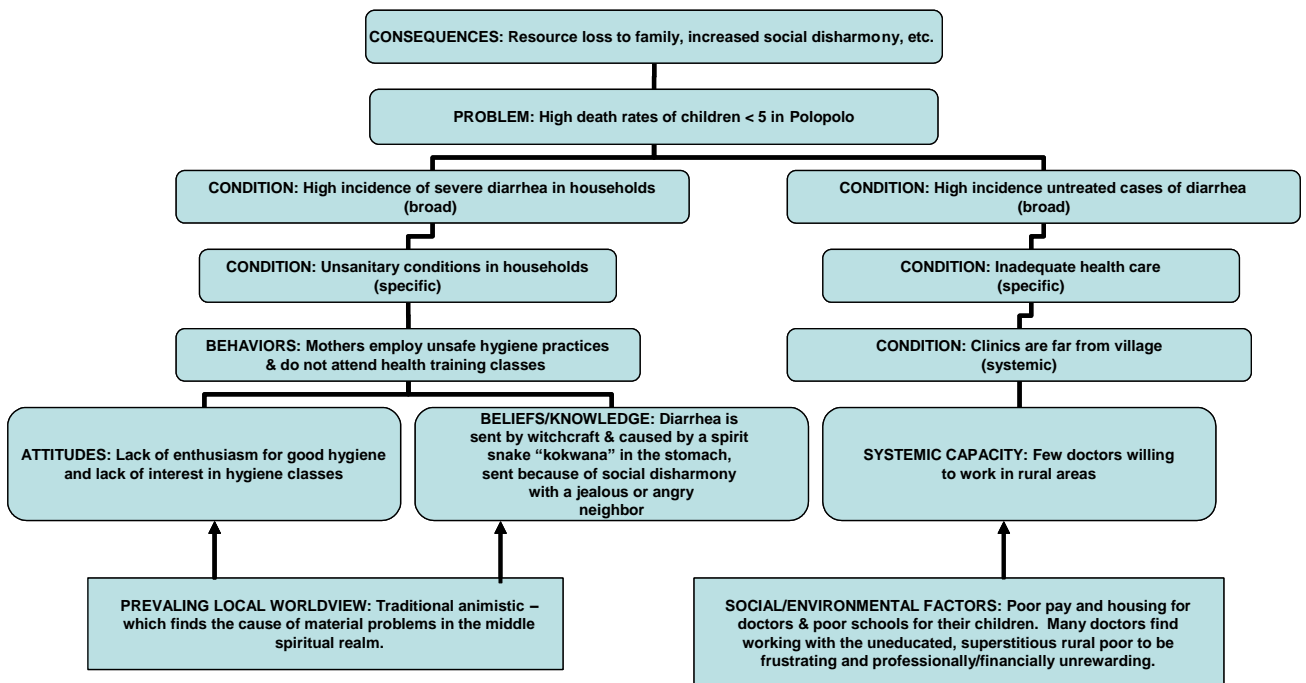


Note that if a program makes a significant contribution toward resolving the problem that it addresses, then the consequences above the problem will change.  Likewise, if the program makes a significant contribution toward resolving systematic capacity or policy factors, then the conditions, the problem, and the consequences of the problem will be impacted.  Understanding this hierarchical dynamic of impact becomes very important as

program designers seek to target program activities toward those factors which will result in significant and lasting change.

On the left side of Figure 14, we see that the traditional animistic worldview shapes the way people interpret the causes of the world around them; in this case shaping even basic beliefs and knowledge about the causes of disease.  But the effects of worldview are far more significant and comprehensive.  Worldview influences the way <u>all</u> individuals, communities and nations interpret various aspects of daily life including: theology, law, health, philosophy, ethics, biology, psychology, sociology, economics, governance, and history.  It is important therefore to recognize that just as the traditional worldview shapes how traditional societies view reality; every program designer has a worldview which shapes his or her perception of reality.  The challenge therefore for responsible program designers is not to design programs to replicate their own worldview, knowledge and beliefs within the target population; but rather to design programs in which program staff and community members together may discover "truth" (transcendent fundamental reality) regarding the nature of the problem and the means by which we may work together to resolve it.  In this process both the worldview of local people and that of development specialists may be reshaped.

> **Box 14:  Definitions**
>
> <u>Worldview</u>: a set of assumptions held consciously or unconsciously in faith about the basic makeup of the world and how the world works[23].
>
> <u>Knowledge</u>: the fact or condition of knowing something with familiarity gained through experience or association; the fact or condition of being aware of something; the range of one's information or understanding; the circumstance or condition of apprehending truth or fact through reasoning.
>
> <u>Belief</u>: a state or habit of mind in which trust or confidence is placed in some person or thing; something believed – especially a tenet or body of tenets held by a group; a conviction of the truth of some statement or the reality of some being or phenomenon especially when based on examination of evidence.
>
> <u>Truth</u>: the state of being the case; a fact; a transcendent fundamental reality.

Often addressing causes at the level of worldview beliefs, policies and/or systematic capacity issues is assumed to be too daunting, political, sensitive or complex to tackle within the context of a five year food security program.  As a result, we may be tempted to avoid the tough issues and target interventions at addressing immediate needs through small scale remedial projects such as digging wells, building clinics or increasing agricultural productivity of key crops.  While these interventions may be needed and appropriate, where problem analysis shows that an underlying cause is a critical factor which will impede change if not addressed, FH must be willing to seek opportunities to address the underlying cause at a level which will result in significant long-term impact.  This does not mean however that FH must always take direct action; at times it may be more prudent to work indirectly and discreetly marshaling or facilitating actions by partners who may be better positioned and/or resourced to directly address the situation.

## Step 3: Phrasing Problems, Causes and Consequences

<u>Guidelines for Phrasing the Problem Statement</u>
There are three basic elements of a problem:

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[23] Darrow L. Miller.  *Discipling Nations, The Power of Truth to Transform Cultures* (Seattle, Washington: YWAM Publishing, 1998).

1. The condition which the program intends to address (what);
2. the population the condition is affecting (who - often referred to as the priority population or program participants); and
3. Location of the population (where).

To state the problem simply:
- Determine the condition the program intends to address;
- Identify the population affected by the condition.  This is the "who" of the problem statement and is sometimes referred to as the priority population, target group or program participants; and
- State the area or location of the population.  This describes "where" the problem will be addressed.

Examples of how to write problem statements:
- Mortality in children living in Jalapa District.
- Dehydration in children < 5 years of age living in Western Nepal.
- Low agriculture productivity for small farmers in Dangriga.
- Low income for small businessmen living in peri-urban areas of Guatemala.

<u>Guidelines for Phrasing Cause and Consequence Statements</u>
There are three elements of causes and consequences:
1. The subject (who - the doer);
2. Action verb (what is done); and
3. The object of the verb.

To state causes and consequences simply:
- Identify the subject of the "who" of the sentence;
- State the verb(s) of the sentence; and
- State the objects of the verb.

Examples of how to write causes and consequences:
- Child gets diarrhea.
- Mother does not wash hands.
- Farmer cuts trees.
- People are uneducated.
- Family pays for funeral.

**Box 15:  Tips**

Avoid the tendency is to use general phrases like "lack of education or knowledge" for causes.  When causes are stated as "the lack of something," the solutions are presupposed.  In other words, we are assuming, for example, the lack of education is the cause when in fact education may be one of several solutions.

Try to get in the habit of expressing problem, cause and consequence statements correctly and concisely as indicated above, this will be of great help as you prepare proposals and other program documents.  However when working with a team that is not accustomed to expressing statements in this manner, such as local community representatives, avoid getting bogged down in drawn out discussions about wording.  What is important during problem analysis is that all team members clearly understand the nature of the problem, causes and consequences being discussed and considered.

Facilitating a Problem Analysis Session

A variety of methods may be used in facilitating problem identification and analysis to help organize and prioritize the many needs and concerns identified through the holistic food security appraisal. The simplest method is brainstorming in a group to identify, discuss and prioritize the problem and its causes through group consensus. However, using the "but why" line of questioning to develop a hierarchical "problem tree" (also known as a causal tree), as described above, typically provides a richer and better organized structure for analysis of problems and their causes.

In facilitating a problem analysis session, a simple but effective technique includes the following:

1. As a group, identify the problem. Write the problem on a card and place it on a large table or tape it to an empty wall space. (Make sure the problem is a condition affecting people in a negative manner. Typical problems are high levels of food insecurity, high malnutrition rates, low family incomes, etc.).

2. Using the "but why" line of questioning, develop the next level of causes. These will typically be broad conditions contributing to the problem. Write them on cards and place them below the problem. (See Appendix 2.2.A below.)

3. Again using the "but why" line of questioning, develop the next level of causes. These will typically be more specific conditions. Write them on cards and place them below the broad conditions noted in # 2 above.

4. Continue this process working down through the causal stream, through the levels of:
   a. Behaviors, attitudes, beliefs & knowledge; and
   b. Systemic conditions, systemic capacity, public policy.

5. Continue on and write the general factors influencing those causes you identified in #4 above. Common causes at this level include worldview and general social, cultural, economic, political and environmental factors. While these causes will be beyond the control of FH, they may not be entirely beyond its influence. Furthermore, these causes need to be analyzed to understand their influence on the rest of the system. At this point your problem tree should look something like the simplified problem tree example in Figure 15 below, but with far more branches and deeper analysis.

6. Finally, refer to the problem again and write its direct consequences on cards. Place these above the problem. The consequences will most likely be more general conditions.

7. When you have completed the 6 steps above it is wise to go back and review the logic in the causal streams you have identified using again the "but why" line of questioning.

Once problem analysis process described above is complete, the program design team is ready to move on to the next step of the design process which is development of the program strategy.

Although we recommend that FH staff use the method of problem analysis described above, there are a number of other methods one may use including *group brainstorming/consensus*, *fishboning*, *cause and consequence analysis*, and others. More on these alternate techniques may be found in CARE *Project Design Handbook* referenced below.

**Figure 15: Problem Tree Example**

**Problem** – High mortality rates among children < 5 in Bolobolo

**But why?**

- Inadequate quantity **of** food provided to children
- High incidence of severe diarrhea in Children < 5 years
- Poor nutritional quality of Foods consumed by children

**But why?**

- Families have low Incomes
- Families have low ag. production
- Children live in unsanitary conditions
- Families drink contaminated water
- Children are Improperly weaned
- Mothers provide children foods with low nutritional value

**But why?**

- Few income-generation activities
- High soil erosion
- Lack of irrigation water
- Mothers do not perceive the need for good hygiene
- Lack of access to clean water source
- Mothers refuse to purify water
- Mothers practice harmful traditional child care behaviors
- Mothers lack knowledge about nutritional values of foods

**But why?**

- Women lack access to capital/credit
- Farmers use slash & burn
- Lack of infrastructure
- Firewood is scarce
- Mothers do not believe scientific explanations for causes of disease & poor nutrition
- No access to nutrition training

**But why?**

- Men control all household income
- Farmers unwilling to change traditional practice
- Gov't policy prioritizes infrastructure & services to urban areas
- E
- Traditional Animistic Worldview

**But why?**

# Acknowledgements and Resources

CARE, *Project Design Handbook, July 2002.:* Link to this document on CD or website: http://www.kcenter.com/care/dme/.

David A. Noebel, *Understanding the Times: The Religious Worldviews of our Day and the Search for Truth* (Eugene, Oregon: Harvest House Publishers, 1991).

Darrow L. Miller. *Discipling Nations, The Power of Truth to Transform Cultures* (Seattle, Washington: YWAM Publishing, 1998).

Merriam-Webster Online Dictionary, http://www.m-w.com/

The Community Toolbox, http://ctb.ku.edu/tools

# 2.3. DEVELOPMENT OF THE PROGRAM STRATEGY

## Description

Through the processes of HFSA and Problem Analysis, a variety of problems and opportunities have been identified and explored.  The design team can now turn its focus toward developing the food security program strategy.  Developing the strategy is no trivial task as it must define: 1) the aim of the program, 2) how the program will achieve its aim, 3) the resources to be used and 4) how the resources will be deployed.

Defining appropriate strategy is no easy task, but using cause-effect logic and a step-by-step process to design the program, will greatly simplify the task of designers and enhance the odds of designing a program that will produce significant impact.

Developing a sound strategy involves at least three key steps:
1. Deciding which causes to address (from the many causes identified through problem analysis);
2. Developing and making choices on interventions for addressing each of the selected causes; and
3. Constructing the program hypothesis.

## Preparing the Program's Logical Framework

Preparing the logical framework involves clearly describing the program objectives (the strategic objective and related intermediate results) and the outputs and activities by which they will be met.  Appropriate indicators much also be developed for measuring change that you expect to occur as a result of program interventions.  Care must be taken in writing program objectives and indicators to ensure that all program stakeholders have a clear understanding of what the program intends to accomplish and the means by which the extent of program success will be demonstrated and evaluated.

## Deciding Which Causes To Address

Because an FH program can seldom address all causes of an identified problem, we need to take care to choose to address causes that contribute significantly to solving the problem.  We should therefore select causes which:
- Make a significant contribution to the problem;
- Can be feasibly addressed by FH and its partners in a holistic, sustainable and cost-effective manner;
- Have high synergy in relation with other interventions;
- Fit our comparative advantage (including our option for partnering with others);
- Are seen as important to the target population;
- That affect a significant portion of the target population; and
- Are consistent with FH's mission, vision and standards.

## Generating and Selecting Interventions

Once we have decided which causes to address, we need to choose the package of actions and procedures that we will develop and implement to address each of the causes.  Each of these packages of actions and procedures are often referred to as an "*intervention"*.   For example, each of the following is a possible intervention: establishing

model farms, providing extension education, an advocacy campaign to change policies, marketing assistance, provisioning water and sanitation, supplementary feeding for malnourished children, etc.

The process of choosing intervention themes includes:
- Developing intervention alternatives;
- Selecting criteria to decide which intervention is preferable; and
- Selecting an intervention (or interventions) to develop and implement within the program.

Developing intervention alternatives is both a research-based and creative process in which program designers and key stakeholders:
1. Research and consider best practices;
2. Consider lessons learned from previous programs (ours and those of other organizations/institutions);
3. Consider individual and institutional experiences;
4. Generate new ideas (based on experiences or literature reviews); and
5. Consider input from communities on desired solutions.

Criteria used for selecting preferred interventions from among the list of alternatives include:
- Cost-effectiveness;
- Social acceptability;
- Managerial requirements and managerial capacity of FH;
- Community support;
- Sustainability;
- Technical feasibility;
- Political sensitivity;
- Level of risk; and
- Availability of resources & donor priorities.

Choosing the best intervention, or set of interventions, may be done simply through team consensus or by using decision tools such as a Ranking Matrix (see Section 1.4. of this manual).

## Steps for Constructing the Program Hypothesis

Constructing the program hypothesis is a five step process which helps program designers in: 1) checking the logic of problem and cause identification, 2) articulating of program interventions, 3) developing clear concepts leading to implementation details, 4) developing clear objectives and indicators.

To illustrate, consider the problem of a high incidence of severe diarrhea in children in Bolobolo in Fig. 10.

**Figure 16: Problem – High incidence of Severe Diarrhea in Children in Bolobolo**
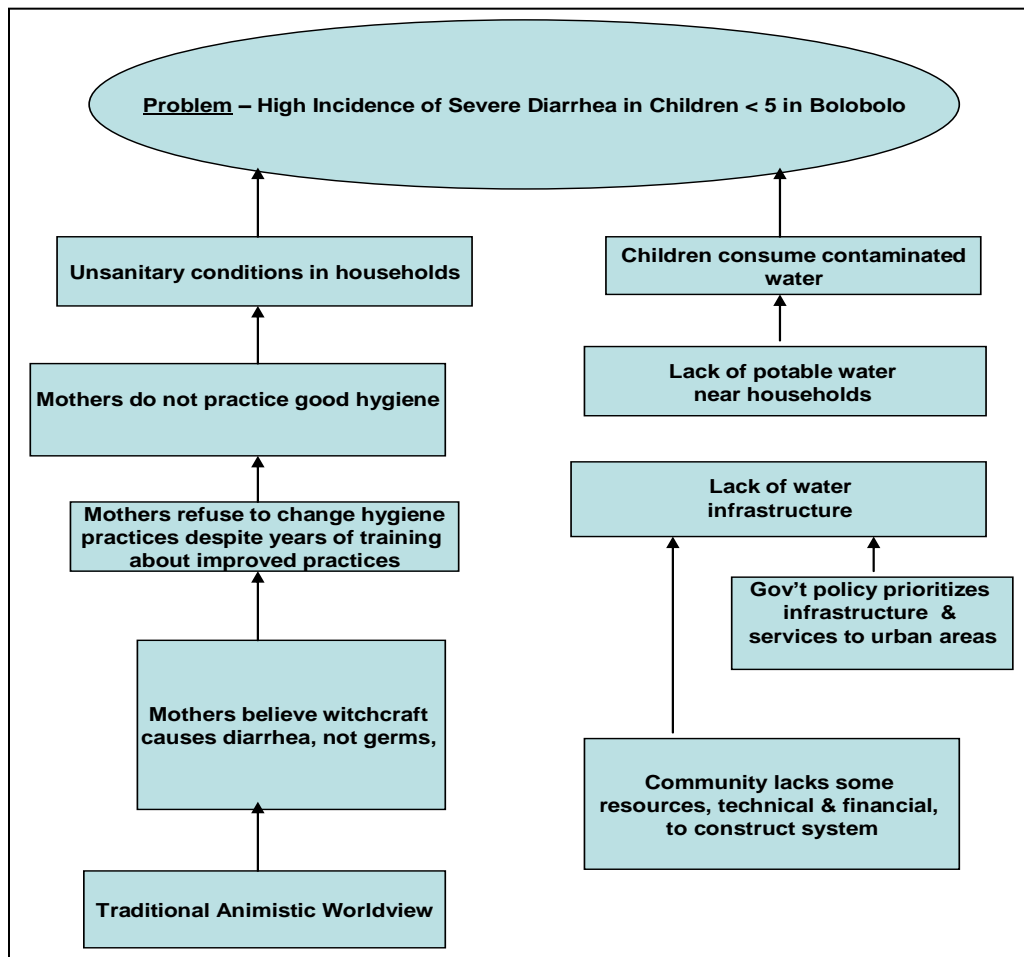


Steps in constructing the program hypothesis are as follows:
1. Convert the problem and its key causes to anticipated outcomes;
2. Develop a diagram that shows the cause and effect relationships of the outcomes;
3. Add interventions to the program hypothesis;
4. Identify assumptions; and
5. Review the program hypothesis diagram logic.

Using these steps we could construct a program hypothesis diagram which corresponds to the problem analysis above as follows:

*Problem*:    High incidence of severe diarrhea among children < 5 in Bolobolo

*Causes*:    Unsanitary conditions in households
Children consume contaminated water

Anticipated Outcomes:
1. Incidence of severe diarrhea will decrease (solution to the problem)
2. Sanitary conditions in households (cause #1)
3. Children's consumption of contaminated water will decrease (cause #2)

**Table 7: Example -- Program Hypothesis Diagram (should be read from bottom up)**

| Hypo-thesis | Outcomes | | Assumptions/Key Questions |
|---|---|---|---|
| THEN | Incidence of severe diarrhea will be reduced | | |
| IF | Unsanitary conditions in households improve (cause #1)<br>AND<br>Fewer children consume contaminated water (cause #2) | AND | No other causes of diarrhea develop.<br>AND<br>Communities collect user fees and maintain the water systems |
| THEN | Unsanitary conditions in households will improve (cause #1)<br>AND<br>Fewer children will consume contaminated water (cause #2) | | |
| IF | More mothers attend hygiene training sessions and adopt improved hygiene practices (cause #1)<br>AND<br>There is access to potable water near households (cause #2) | AND | Local resources are adequate for improving unsanitary conditions (except for water infrastructure)<br>AND<br>Mothers will carry clean water for children when working in fields away from households |
| THEN | More mothers will be willing to attend hygiene training sessions and adopt improved hygiene practices (cause #1)<br>AND<br>Adequate access to potable water near households is established (cause #2) | | |
| IF | Hygiene education programs assist mothers to perceive the truth about known physical (scientific) & preventable causes of diarrhea (cause #1)<br>AND<br>Water infrastructure is constructed and community members are trained to collect fees and maintain the system (cause #2) | AND | Husbands will not be resistant to wives participation in trainings<br>AND<br>Suitable clean water sources can be located near target communities |
| THEN | Known physical (scientific) & preventable causes of diseases (including diarrhea) will be more widely accepted (Cause #1)<br><br>(Social harmony will also improve as belief in witchcraft by neighbors as the cause of diarrhea, and false accusations against neighbors for sending diarrhea are dispelled) | | |
| IF | Traditional women exchange erroneous worldview beliefs for a biblical worldview | | |
| THEN | Traditional women will begin to exchange erroneous worldview beliefs for a biblical worldview | | |
| IF | Local church partners provide worldview training to local mothers AND FH hygiene education promoters assist mothers to perceive the truth about known physical (scientific) & preventable causes of diarrhea (cause #1) | AND | The local church teaches about worldview effectively |

## A Logical Framework

Once the program hypothesis diagram has been developed, the next step in developing the program strategy involves preparing a logical framework that provides details of what the program will accomplish, how it will accomplish it, and how you will know whether or not what you set out to do has been accomplished. Preparing the logical framework involves clearly describing the program objectives (the strategic objective and related

intermediate results) and the outputs and activities by which they will be met. Appropriate indicators must also be developed for measuring the change that you expect to occur as a result of program interventions. Care must be taken in writing program objectives and indicators to ensure that all program stakeholders have a clear understanding of what the program intends to accomplish and the means by which the extent of program success will be demonstrated and evaluated.

A *logical framework* (usually referred to as a logframe) is a logic model, similar to the program hypothesis diagram, for organizing program design graphically and for reviewing the program logic. While the program hypothesis diagram represents a theoretical overview of the program, the logframe provides details of what the program will accomplish, how it will accomplish it, and how you know whether it has been accomplished. The logframe is a simple but potentially powerful tool which if organized correctly can help us to:

- Achieve stakeholder consensus;
- Organize thinking;
- Relate activities and investment to expected results;
- Set performance indicators;
- Allocate responsibilities; and
- Communicate concisely and unambiguously with all key stakeholders.

Many donors and NGOs use logframes for planning, implementation and evaluation because of the advantages they offer. The logframe draws together the key components of the planned activity into a clear set of statements, provides a convenient overview that is useful for busy staff, anticipates implementation and assists with planning of development activities, and sets up a framework for M&E in which planned and actual results can be easily compared.

Many donors have their own logframe formats and terminology and it is important to identify whether your potential donor has a required format. If so, follow the instructions of the donor carefully in preparing the logframe for your proposal.

Most logframes will describe the following, although terminology may vary as previously noted:

- The long-term *strategic objective* – the impact change in the broad condition that the program is trying to achieve;
- *Intermediate results* (or objectives) – the intended changes in systemic conditions or behaviors that must be achieved in order to accomplish the strategic objective;
- *Outputs* – the goods and services to be produced by the program (people trained, educational materials produced, etc.);
- *Activities* – the main activities that must be undertaken in order to accomplish outputs;
- *Risks and Assumptions* – the important events, conditions and decisions outside the control of the program that are necessary for meeting objectives;
- The key *indicators* to verify the extent that intermediate results and impact have been achieved (in terms of quantity, quality and time); and
- The *means of verification* of indicators (the data sources).

**Figure 17: Typical Logical Framework Format**

| Hierarchy of Strategic Objective and Intermediate Results | Indicators | Means of Verification | Risks and Assumptions |
|---|---|---|---|
| Strategic Objective | | | |
| Intermediate results | | | |
| Outputs | | | |
| Activities  IF | | then | and |

*Ends* ↑ *Means*
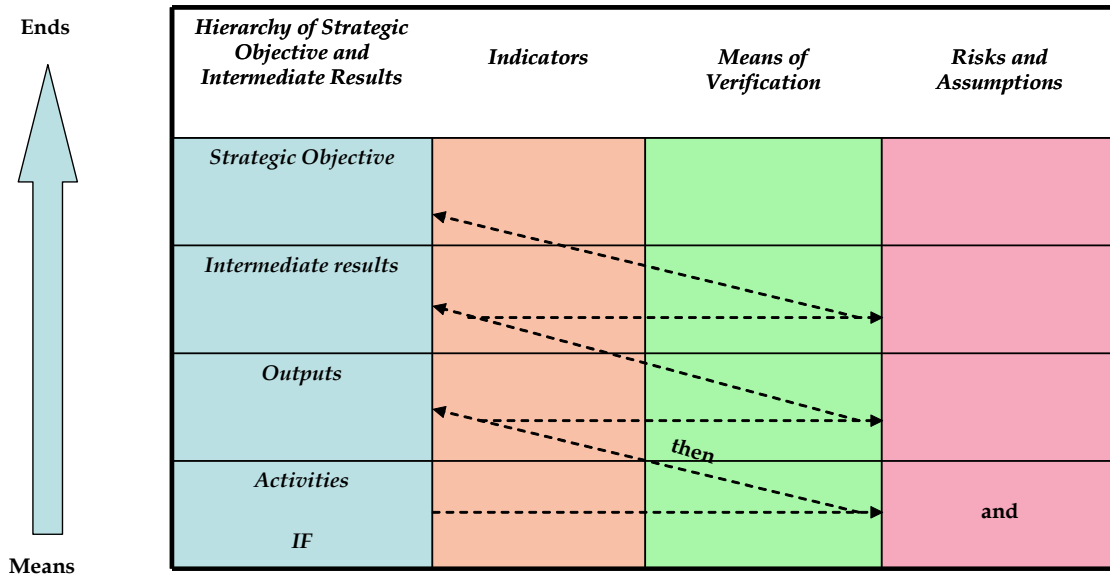
The flow of logic within a logframe follows a simple pattern similar to that used in development of the program hypothesis diagram:

> IF we undertake the activities AND the assumptions hold true, THEN we will create the outputs.
>
> IF we create the outputs AND the assumptions hold true, THEN we will achieve the intermediate results.
>
> IF we achieve the intermediate results AND the assumptions hold true, THEN we will achieve the strategic objective.

This simple logic flow of the logframe, combined with a clear set of statements related to activities, objectives and indicators, is very helpful in clarifying thinking about the task to be achieved, how to evaluate change, and for improving communication among those working on any given activity. The logframe matrix below lays out a number of questions that are commonly answered within a logframe.

**Table 8: The Logframe Matrix**

| Project Structure | Indicators of Achievement | Means of Verification | Important Risks and Assumptions |
|---|---|---|---|
| **Strategic Objective** What is the broad objective which the activity will help achieve? | What are the quantitative measures or qualitative judgments, by which the impact change in the SO can be judged? | What sources of information exist or can be provided to allow the SO to be measured? | What external factors are necessary to sustain the SO in the long run? |
| **Intermediate Results** What are the intended changes in conditions or behaviors? What are the benefits, to whom? | What are the quantitative measures or qualitative judgments, by which achievement of the IRs can be judged? | What sources of information exist or can be provided to verify the achievement of the IRs? | What external factors are necessary if the IRs are to contribute to achievement of the SO? |
| **Outputs** What outputs (deliverables) are to be produced in order to achieve the purpose? | What kind and quality of outputs and by when will they be produced? (QQT: Quantity, Quality, Time) | What are the sources of information to verify the achievement of the outputs? | What are the factors not in control of the project which are liable to restrict the outputs achieving the IRs? |
| **Activities** What activities must be achieved to accomplish the outputs? | What kind and quality of activities and by when will they be produced? | What are the sources of information to verify the achievement of the activities? | What factors will restrict the activities from creating the outputs? |

Additional information on development and use of logframes may be found in Chapter 5 of the DFID, *Tools for Development, A handbook for those engaged in development activity*, September 2002. This document may be downloaded via the internet at http://www.dfid.gov.uk/pubs/files/toolsfordevelopment.pdf.

# Logical Framework Terminology

Terminology used in program design often varies from organization to organization and can lead to considerable confusion. For instance, where FH uses the term "strategic objective", other organizations may use the term: goal, program goal, program impact goal, final impact goal, program purpose, development goal, final objective, scheme goal, and sector objective. Likewise, where FH uses the term "intermediate results", other organizations may use purpose, objectives, results, intermediate objectives, effects, effect objectives, short-term objectives or program objectives. Therefore, before discussing the next steps for completing program design we need to specifically define program design terminology as used within FH.

**Box 16:  Logframe Definitions**

- *Impact* – a positive change in a condition of human wellbeing (food insecurity, poverty, income, disease, etc.)

- *Strategic Objective* (SO) – the impact change in the <u>broad</u> condition that the program is trying to achieve; the ultimate aim or purpose of the program that corresponds to the specific problem or opportunity we are trying to address

- *Intermediate Results (IR)* – the intended changes in systemic conditions or behaviors that must be achieved in order to accomplish the SO.  Intermediate results include:
  - *Intermediate impacts* – impact change in <u>specific</u> conditions below the level of the problem we are trying to address that must be achieved to accomplish the SO
  - *Effects*  --  changes in human behaviors and practices; as well as changes in systems (such as improved health care systems)

- *Outputs* – the goods and services to be produced by the program (people trained, educational materials produced, etc.)

- *Activities* – the main activities that must be undertaken in order to accomplish outputs

- *Assumptions* – the important events, conditions and decisions outside the control of the program that are necessary for meeting objectives

For FH the ultimate aim or purpose of the program (the goal that corresponds to the specific problem or opportunity we are trying to address) is referred to as the *strategic objective.   Strategic objective* statements are written to reflect an improvement in human conditions expected to take place in a target group.  Strategic objectives:
- Present the anticipated improvements in some aspect of the lives of program beneficiaries;
- Describe what we expect the program setting to be like after interventions have been completed;
- Contribute to higher goals (changing consequences of the problem that the program seeks to address);
- Are the result of the achievement of the intermediate results;
- Should be measurable (although it is not always possible to measure them directly as part of the program); and
- Must be realistic – do not state that a food security program can accomplish more than it possibly can.

The strategic objective statement should include:
1. Who will be reached (identify the beneficiaries & # of beneficiaries);
2. What change will be achieved (impact);
3. In what time period the change will be achieved; and
4. Where (in what location).

Example: *By the end of 2010, average household incomes will increase by 40% (from 2005 baseline) for the 1300 families living in the communities of Motomoto and Bolobolo.*

*Intermediate results* are those intended changes in systemic conditions or behaviors that must be achieved in order to accomplish the strategic objective.  They reflect changes in

behavior or systems at the target group level which are needed to bring about positive change in human condition (reflected in the strategic objective). Characteristics of intermediate results:

- They describe changes in system conditions or behaviors that must take place in order to achieve the strategic objective;
- They are essential conditions to achieving the strategic objective;
- They indicate what practices will change;
- They indicate how and when the foreseen change will take place;
- They are verifiable at some point during the execution of the program; and
- They are endpoints, not processes.

Typical intermediate results include, for example, such things as functioning farm credit systems (systemic), adoption and correct use of appropriate technology (behavioral). The following is an example of a properly phrased intermediate result statement:

*By December 2007, 600 farmers in communities of Motomoto and Bolobolo will have increased their food production by 20% by growing crops in the upper jungle through the use of improved seeds and cropping practices.*

## Linking Problem Cause/Effect Logic to the Logframe

Pausing to reflect for a moment, up to this point the design team has used cause/effect logic to identify a problem, select causes to address, and to develop a strategy of interventions to address the selected causes. As the design team seeks to define the strategic objective and intermediate results; note how the problem, causes and interventions previously identified can be converted into the strategic objective, intermediate results and outputs (see Figure 18).

**Figure 18: Example of problem hierarchy and objective statements for a water project**

| Problem ⟶ | Strategic Objective |
|---|---|
| High incidence of water/excreta related disease among villagers in Bella District | To decrease incidence of excreta/water-related disease by 10% (from X% to Y%) in project villages by the end of 2007. |
| **Causes ⟶** | **Intermediate Results** |
| Villagers do not have access to adequate clean water | To increase the percent of villagers who use potable water from 10% to 75% by 2007. |
| Villagers do not wash hands regularly | To increase the number of villagers that properly use improved hygiene practices by 2004. |
| Fecal contamination gets into food and villagers do not use latrines | To increase usage of latrines by village HHs from 0% to 50% by the end of the project. |
| **Interventions ⟶** | **Output Targets** |
| Drinking Water System | W number of drinking water systems serving X households |
| Hygiene Education | Y number of people completing training |
| Latrines | Z number of latrines built |

We can see a more comprehensive example of the use of cause and effect logic in program design in the example of a typical agricultural project in Figure 19.

**Figure 19: Cause and Effect Logic in a Typical Agricultural Project**

| Levels of the Problem Analysis | Output of the Problem Analysis / Needs Assessment | Output of the Strategy Selection | Hierarchy of Strategic and Intermediate Results Objectives | Cause and Effect Logic |
|---|---|---|---|---|
| **Broad Condition** (poverty) | **Problem** (low income) | **Problem** (low income) | **Strategic Objective** (increase income) | **Impact** (improvement in the final condition -- poverty) |
| **Specific Condition** (low production) | **Direct, Immediate Causes** (high soil erosion/low fertility) | **Particular Cause** (High soil erosion/low fertility) | **Intermediate Results** (Increased yields) | **Intermediate Impacts** (improvement in condition, for example: increased productivity) |
| **Behaviors** (poor planting practices) | **Indirect, Secondary Causes** (farmers plant on steep slopes without erosion control practices) | **Causes** (farmers do not employ good erosion control practices) | **Intermediate Results** (farmers adopt improved practices including terracing slopes) | **Effects** (positive change in behavior, for example: increase in farmers terracing slopes) |
| **Attitudes & Beliefs** (traditional practices must be followed) | (farmers believe yields are improved by traditional practices that appease spirits, not by improved soil/fertility management) | | | |
| **Social, Political, Economic, Cultural, Worldview and Environmental Factors** (no access to info on improved technologies; traditional worldview blocks adoption of improved practices) | **Systemic Causes** (no access to knowledge and erroneousness aspects of worldview) | **Interventions** (holistic extension education program to address technical and worldview aspects of improved practices & technologies) | **Outputs** (establish a holistic extension system) | **Outputs** (goods and services produced by project, for example; # of farmers completing extension training courses) |
| | | | **Activities** (Hire and recruit extension workers, organize farmer groups, conduct demonstrations, etc.) | **Processes** (Activities to turn inputs into outputs, examples: developing training materials, etc.) |
| | | | **Resources** (labor, cash, M&E necessary to establish extension education) | **Inputs** (Resources necessary to achieve outputs) |

As illustrated in the previous examples of cause-effect logic, interventions generate outputs.  Outputs in turn lead to changes in intermediate results (changes in attitudes, beliefs and ultimately behaviors; or in systemic conditions).  The strategic objective (final or impact goal) addresses the problem and relates to a fundamental improvement in the broad human condition expressed in the problem statement.

## Indicators

We can think of an indicator as a measure of a concept or behavior.  It is not necessarily the concept itself, but is at least a reflection of that concept.  An indicator is defined as a variable, measure or criterion used to assist in verifying whether a proposed change has occurred, and thus whether a strategic objective or intermediate result has been achieved.  Indicators are quantitative or qualitative criteria for success enabling one to measure or assess the achievement of program objectives.  There are four general types of indicators:

1. Input indicator – describe what goes into the program, such as the number of hours of training, the amount of money spent, the number of contraceptives distributed;
2. Output indicators – describes program activities such as the number of community workers trained, the number of family planning acceptors, the number of women enrolled in mothers' clubs;
3. Effect indicator – describes the change in condition or behavior as a result of achieving an intermediate result; and
4. Impact indicators – measures actual change in conditions of the basic problem identified, including changes in livelihood status, health, wealth, etc.

Input and output indicators are easier to measure than impact indicators, but they provide only an indirect measure of the success of the program.  They assume the achievement of certain activities will result in change, but they don't demonstrate it.  They also provide a standard against which to measure, or assess, or show, the progress of an activity against stated targets or benchmarks.  Common indicators are: input, output, process, effect and impact, leading, trailing, etc.

Indicators can be direct or indirect (proxy).  Indirect indicators are often impact indicators and used when a direct measure is not feasible or cost effective.

Ideally, indicators should be:

1. Valid – they should actually measure what they are supposed to measure;
2. Reliable (verifiable or objective) – conclusions based on them should be the same if measured by different people at different times and under different circumstances;
3. Relevant – able to be applied to final and intermediate results;
4. Sensitive – they should be sensitive to changes in the situation being observed;
5. Specific – based on available data;
6. Cost effective – the results should be worth the time and money it costs to apply them; and
7. Timely – the data should be collected reasonably quickly.

Both activities and objectives are often confused with indicators.  Consider this example of an intermediate result objective: *300 mothers using the correct preparation and use*

*of Sugar-Salt Solutions (SSS) to prevent dehydration in children under the age of five by the end of June 1997.*

Question: Looking at the objective statement above, how can someone determine if an intermediate result objective was achieved?  Answer: by having effect and impact indicators such as those described below.

Effect: *Number of mothers correctly using SSS to prevent dehydration.*

Impact: *Number of children under the age of five suffering from dehydration in the last month; number of cases of dehydration treated at the health center.*

## More on the Characteristics of Clear and Precise Objectives and Their Related Indicators

Objectives must be specific (what and when), measurable (how much), must describe what is desirable (suitable and appropriate for the situation) and obtainable (realistic).

**Box 17: Objective Checklist**

| S | Specific | Is the objective clear in terms of what, how, when and where the situation will be changed? |
|---|----------|---------------------------------------------------------------------------------------------|
| M | Measurable | Are the targets measurable (e.g., how much of an increase or how many people)? |
| A | Area-Specific | Does the objective delineate an area (village, province, agricultural zone) and/or a population group (sex, age, occupational group)? |
| R | Realistic | Is the program able to obtain the level of involvement and change reflected in the objective statement? |
| T | Time-Bound | Does the objective reflect a time period in which it will be accomplished? |

Read the following objective statement to see if anything else is needed to make it clearer for the reader.

"Decrease the percentage of children 6-59 months in program area who have chronic moderate and severe malnutrition from 51% to 42% during the five years of the program."

You would need to either (a) include a sheet with a list of operational definitions pertaining to the objective statement and its indicators (including definitions for "chronic moderate and severe malnutrition") or (b) you would need to add some words to the objective statement that includes your definitions.  Given that readers reviewing program progress reports do not always read the entire document, or may not receive appendices that include operational definitions of indicators, the second option makes your objective clearer for any reader.

The revised objective statement which includes the operational definition would be:

"Decrease the percentage of children 6-59 months in the program area who are at –2 SD median height-for-age or below, from 51% to 42% during the five years of the program."

The degree to which your objectives and indicators are logical, well defined and have good targets will be the degree to which you are able to successfully monitor your program's progress; therefore, it is critical to elaborate both carefully. One tool to help us elaborate good objectives and indicators is to use an *Indicator Elaboration Sheet.* Provided below is a blank template for an Indicator Elaboration Sheet and a completed example.

**Box 18: Indicator Elaboration Sheet Template**

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**Indicator Elaboration Sheet Template (Blank)**

General Objective:

Indicator: Phrase an indicator that answers the following questions:
1. What exactly should be measured?
2. Who is the target group?
3. What, if any, is the direction of change to be achieved (i.e., increase, decrease, etc.)

Targets: By when should how much of the objective be achieved?

|  | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Indicator summary | a | b | c | d | e |

Rationale: Why is this indicator a good indicator for measuring the objective?

Definitions: What exactly is meant by all the key terms used in the objective/indicator phrase?

When calculations are needed, determine the mathematical formula for calculating the indicator values.

Targeting: How and on the basis of what information is the target to be elaborated?

Validity/Limitations:
1. Under which conditions is the indicator valid?
2. Which aspect(s) of the objective(s) is(are) not covered?
3. Which other indicators are needed in order to cover all aspects of the objective?

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**Box 19: Indicator Elaboration Sheet – A well-completed example for an indicator used for measuring impact within a water and sanitation program.**

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**Indicator Elaboration Sheet – A well-completed example for an indicator used for measuring impact within a water and sanitation program.**

General Objective *(Impact)*: Decrease the rate of diarrheal disease among children < 36 mo in Bolobolo by 25% by 2010 (from the rate determined at the time of the project baseline survey).

Indicator: Phrase an indicator that answers the following questions:

*1.* What exactly should be measured? *% decrease in rate of diarrheal disease (from the rate determined at the time of the project baseline survey)*
2. Who is the target group? *Children in sample area < 36 months of age*

***Indicator: % change in the rate of diarrheal disease among children <36 mo. in Bolobolo****.*

3. What, if any, is the direction of change to be achieved (i.e., increase, decrease, etc.)
   ***Decrease***

</div>

Targets:  By when should how much of the objective be achieved?

| | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| **Indicator summary** *(% <u>decrease</u> from the rate determined at the time of the project baseline survey)* | (baseline to be collected) | | 10% | | 25% |

**Rationale:**  Why is this indicator a good indicator for measuring the objective?

*It is well documented that water and sanitation programs which include improvements in facilities as well as hygiene education for behavior change can decrease the rate of diarrheal disease on the order of 25% or more.  Handwashing promotion alone has produced reductions in diarrheal disease on the order of 32 to 43%, however, several studies have found that the impact of water and sanitation interventions on child diarrhea is greatest among infants who are not breastfed.*

Definitions:  What exactly is meant by all the key terms used in the objective/indicator phrase?

*The indicator is the **period of prevalence** of diarrhea based on the two-week recall of the child's primary caretaker (usually the mother).  It is defined as the proportion of children in a given sample who have diarrhea at the time the information is collected or who have had it anytime in the two preceding weeks. **Diarrhea** is defined as more than three loose stools passed in a twenty-four hour period.  **Age** is calculated in completed months at the time the information is collected from the caretaker.  A child who is 20 days old is considered zero months of age and a child of 50 days is considered one month old.*

When calculations are needed, determine the mathematical formula for calculating the indicator values.

---

**Calculations:**

***Number of children < 36 months of age in the sample with diarrhea in the last two weeks divided by***

*-----------------------------------------------------------------------------*

***Total number of children < 36 months of age in the sample***

---

Targeting:  How and on the basis of what information is the target to be elaborated?

*Data for this indicator are obtained directly from the caretaker by means of a population-based survey of a sample of households, at baseline, mid-term and end of project.  The data will be measured during the same period of the year (month) each time it is measured.  The survey respondent should be the principal caretaker of the child.  He or she must provide information on how many children <36 months are in the household and whether or not they have had diarrhea as defined above in the two preceding weeks.*

Validity/Limitations:
1.  Under which conditions is the indicator valid?
*Health service records should not be used as a source of data for this indicator as they underestimate the overall disease burden of diarrhea because most children with diarrhea are not taken to a health care facility.  Diarrheal disease prevalence is also influenced by season, generally being more prevalent in the rainy seasons.  Therefore the surveys must occur in the same season.*
2.  Which aspect(s) of the objective(s) is(are) not covered?  *The objective is covered, however, the indicator should be combined with indicators related to improved access to and use of improved water sources and to indicators which measure behavior change in hygiene practices.*
3.  Which other indicators are needed in order to cover all aspects of the objective?  *Consider adding indicators for % of caregivers and food preparers with appropriate hand washing behaviors, and for % of households with year around access to improved water source.  Also consider appropriate indicators for access to and use of sanitation facilities.*

Finally, as you develop indicators, keep in mind you will occasionally need several indicators to properly measure one objective. Be careful however to keep indicators to the minimal number necessary to verify whether or not a proposed change has occurred. While M&E is an important function in program design, it can also be time consuming and expensive. There is a very real danger of loading up staff with so much work to monitor change that they are unable to do the work needed to produce the desired change.

## Outputs, Activities and Inputs

Once the hard work of determining strategic objectives, intermediate objectives, indicators and appropriate interventions is complete, it is relatively easy to decide on outputs, activities and inputs. Nevertheless, defining outputs, activities and inputs, along with their corresponding indicators, is essential to establishing a program M&E plan.

Basic steps for developing program outputs, activities and inputs:
1. *Define outputs for each effect objective.* Decide what products (outputs) will be needed to assure expected change at the effect level. Keep in mind that for successful M&E, the link between outputs and the corresponding effect objectives must be clear. Indicators for output goals are typically a simple enumeration of products or services delivered. Well-written output statements include a precise verb, quantified target and timeframe. For example:
    a. By the end of 2007, construct 15 wells in Bolobolo. The corresponding output indicator for this objective is simply the "# of wells constructed in Bolobolo by the end of 2007".
    b. By the end of July 2008, train 20 Traditional Birth Attendants (TBAs) in Dondo (40 hr. TBA training program). The corresponding indicator would read, "# of TBAs in Dondo successfully completing 40 hr. TBA training program by the end of July 2008.

2. *Develop activities and targets for each output.* The list of activities should include both actions to be taken and proper sequence for implementation. In addition, timeframes and quantified targets are important components of each activity goal. As with output objectives, indicators usually require monitors to record the number of activities successfully implemented. Well-written activity statements include a precise verb, quantified target and timeframe. For example:
    a. By the end of 2005, purchase materials for 15 wells in Bolobolo.
    b. By January 2006, deliver all materials for construction of 15 wells to storeroom in Bolobolo.
    c. By July 2006, complete first draft of TBA training materials for 40 hr. program. Etc.

3. *Define inputs.* Define the quantities of basic resources required (money, materials, technical assistance and support structures required to realize program activities). Program budgets typically detail inputs and their associated costs.

## Acknowledgements and Resources

CARE, *Project Design Handbook, July 2002.*   Link to this document on CD or website: http://www.kcenter.com/care/dme/.

DFID, *Tools for Development, A Handbook for those Engaged in Development Activity*, Chapter 5, Logical Frameworks.  (2002).  Link to this document on CD, website: http://www.dfid.gov.uk/pubs/files/toolsfordevelopment.pdf

*Guide for Designing Results-Oriented Projects and Writing Successful Proposals*, International Planned Parenthood Federation.
http://www.ippfwhr.org/publications/download/monographs/proposal_guide_e.pdf
(English)
http://www.ippfwhr.org/publications/download/monographs/proposal_guide_s.pdf
(Spanish)

The Community Toolbox, http://ctb.ku.edu/tools

# 2.4. MONITORING AND EVALUATION (M&E) SYSTEM DESIGN

Once the design team has clearly defined its objectives at each level of the program hierarchy and selected appropriate indicators as described in the previous chapter, the design team should begin to design the program monitoring and evaluation (M&E) plan.

An *M&E plan* outlines the M&E system needed to collect information during and after the life of a project or program in order to assess the completion of activities and outputs, as well as the achievement of impact, intermediate impacts, and effects.

The *M&E system* is the set of activities, staff, and other resources necessary to collect, manage, analyze, report and disseminate information needed for timely decision-making and reporting.

It is important to have both the M&E plan and M&E system in place prior to, or shortly after, program start-up to ensure that adequate resources are designated for M&E efforts and particularly so that baseline study activities can begin as soon as the program begins.

For more information on M&E system design **see Chapter 5 of this manual** which explores:
- *Functions of M&E;*
- *Primary Aims of an M&E system;*
- *Five Strategic Areas of M&E Inquiry;*
- *Six Key Steps in Establishing an M&E System; and*
- *Documenting the M&E Plan.*

Also provided in Chapter 5 are links to  helpful resources including M&E standards, guides and tools to assist users with the design and implementation of effective M&E systems.

In the following chapter we will explore what is typically the first step in program evaluation, the *baseline survey*.

# CHAPTER 3: BASELINE SURVEYING TOOLS

## REVIEW

**Chapter 1** of this manual we provided a framework for designing high quality food security programs, detailed a four-step method for *macro-targeting*, described the purpose of, and steps for, conducting a *HFSA* and introduced a variety of tools (*RRA/PRA/HCA and AI*) that may be used as part of the HFSA process.

**Chapter 2** of the manual explored the five steps of program design: *analysis of the operating environment, problem identification and analysis, development of the program strategy, design of the M&E system and resource planning.*

## DESCRIPTION

The main objective of a baseline study is to collect the information or data required to establish the initial state of indicators within the target area at the start of program interventions, to make it possible to clearly measure change over the life of the program. Many research methods can be used in baseline studies. Good baseline studies typically include both qualitative and quantitative methods, as combining these methods yields insights that neither can achieve if used exclusively. Effective baseline studies describe indicators (qualitative and quantitative) at the start of the project with enough precision to make possible the clear measurement of change over the life of the program when later evaluations are compared with the baseline results. Because interviewing every person, or even every farmer or mother in a community can be very time consuming and expensive, baseline studies typically "sample" a smaller group of people that is representative of the whole group being studied. Knowledge, Attitudes and Practices (KAP) studies, and more recently Knowledge, Practices, and Coverage (KPC) surveys, or modifications thereof, have become widely used within food security programs for establishing baseline information and for subsequent collection of data for mid-term and final evaluations. In a health component of food security programs, it is often necessary to use specialized measurements in order to determine the growth of a child. Similarly, in an agriculture component, it is often necessary to use specialized measurements to determine things like crop yields. A variety of tools and resource guides are available to assist program staff in the development of effective baseline studies, and are linked to the baseline study discussion below.

## INTRODUCTION TO CHAPTER 3

The baseline phase of the program typically signals the start of program activities. In many ways, conducting a baseline study is similar to taking a photograph of a person or a place so that in the future, if you take another photograph, you can compare the two photographs and evaluate changes that have occurred in the time that has lapsed between the two photographs. The baseline study differs significantly from field assessments conducted during the Holistic Food Security Appraisal (HFSA). The primary purpose of HFSAs is to inform project design and develop sound goals and indicators based on cause-and-effect linkages. In contrast, the primary purpose of a

baseline study is to measure the initial status of indicators of effect and impact within the corresponding target populations, and as described in the program logframe and M&E plan. This means that the same indicators must be measured, in the same population, using the same methodology, at a minimum of two points in time within the life of a program (the first measurement constitutes the baseline survey).

A good M&E plan, including definition of the strategic objective, intermediate results and output indicators should be clearly defined before the baseline study is designed; if not, the study will not provide the benchmarks needed for assessing project performance. (Refer to Chapter 5 of this manual for more details about M&E plans and systems.)

# 3.1  RESEARCH METHODS

A variety of research methods can be used in baseline studies and each has its strengths and weaknesses.  Social scientists typically distinguish between qualitative and quantitative methods and good baseline studies frequently include both, as combining these methods yields insights that neither can achieve if used exclusively. Quantitative research methodologies are normally the most appropriate for collection of baseline "measures", while qualitative research methodologies shed light on the reasons for those measures and provide information about food beliefs, values, origins of diets, and so on, that are difficult to capture through quantitative research methods.  Visual methodologies, including maps and diagrams may also enhance baseline studies and are perhaps underused by many FH fields in their baseline studies.

Reliability of the data collected and ensuring that the data will be correctly interpreted are both of central importance in choosing the research methods for a base line study.  It is therefore important to consider how and when we can best use each of these methodologies within a baseline study.

## Quantitative Research Methodologies

Quantitative research uses methods adopted from the physical sciences that are designed to ensure objectivity, broad applicability and reliability. These methods typically cover the ways research participants are selected in an unbiased manner, standardization of the survey tools, and the statistical methods used in the study. The research team in the quantitative approach is considered external to the actual research, and results are expected to be replicable no matter who conducts the research.

A variety of quantitative research methodologies are available and used in food security baselines, perhaps the most widely employed instrument is the Knowledge, Practices and Coverage (KPC) Survey used primarily for baseline and final evaluations. In addition to the KPC, anthropometric surveys are frequently used in order to obtain baseline information and estimates of impact on nutritional status of children.

The quantitative component of the baseline study typically uses a survey instrument to measure a research participants' knowledge; for example, do farmers know how to construct terraces.  Practices are also frequently studied; for example, are farmers presently terracing their land, do mothers wash their hands before preparing and serving meals, etc.  Vaccination coverage, malnutrition, and crop yields are other areas typically explored using a survey instrument.

## Qualitative Research Methodologies

Qualitative research methodologies examine phenomena in depth and detail, the emphasis is on understanding the phenomena as it exists.  The advantage of using qualitative methods is that they generate rich, detailed data and provide a context for behavior.  Qualitative methods are also useful in determining the qualities of something and/or the reasons for something.  For instance, the physical characteristics of health posts, work attitudes of health staff toward their patients, the process of health care delivery, and local beliefs regarding health.   Qualitative methods are designed to help researchers understand the meanings people assign to social phenomena and to shed light on beliefs and thought processes underlying behaviors/practices.

Focus group, semi-structured and key informant interviews; rapid rural appraisal; participatory rural appraisal; HCA and other participatory methodologies described in Chapter 1 of this manual are among the numerous qualitative methodologies that may be used in a baseline study.

Although considerable qualitative research will have been conducted prior to the baseline through the holistic food security appraisal (HFSA), new questions or a need for clarification may arise during problem analysis and program design activities that require additional qualitative research. Additional qualitative research may be required in order to properly understand or interpret quantitative data collected as part of the baseline survey. Research into questions that may lead to significant modifications to program indicators (or major changes in program design) should be conducted as part of the baseline study before program interventions begin. Qualitative research into less significant questions is sometimes postponed and gathered by program staff once they have been deployed to the field.

Some of the different purposes of qualitative and quantitative research methodologies are illustrated in Table 9 below.

**Table 9:  Purposes of Qualitative and Quantitative Research Methodologies**

| For what purposes are Quantitative Methods useful? | Examples | | For what purposes are Qualitative Methods useful? | Examples |
|---|---|---|---|---|
| To measure changes (when the terms are already defined). | To detect a change in agricultural production.  To detect a change in the percentage of children taken to a clinic when they have cough and rapid or difficult breathing. | | To sense (without measuring) emotion and attitudes. | To know which is more important to mothers: *When* she introduces food or *how* she introduces food (Attitudes are not black and white: gray.) |
| To answer "how many" and "how often" type questions with varying degrees of precision. | To determine the average number of animals that each family has at the beginning and end of a project.  To know how many times during the day mothers feed their children. | | To get a feel for a situation rapidly and at low-cost. ("quick and dirty") | To know -- through a two day process -- the main crops that the farmers are using in an area (without a high level of precision. |

| For what purposes are Quantitative Methods useful? | Examples | | For what purposes are Qualitative Methods useful? | Examples |
|---|---|---|---|---|
| To answer "when" questions with precision. | To know when (at which age) the mother begins to give their children food other than breastmilk. To know when farmers are planting a particular crop. (Averages, before a certain time, quartiles, etc.) | | To answer "why" type questions. To better understand unanticipated results found during a KPC survey or other quantitative study. | To know the *reasons* why people are not using oral rehydration solution or fertilizer (without necessarily knowing the *principal* reason). To know why nobody said they went to a traditional healer. |
| To answer "Who" type questions precisely. | To know what portion of the deliveries in an area were attended by a qualified health worker. (But you may need to use qualitative methods - -e.g., interviews or checklists -- to know if a particular type of Health Worker is, in fact, qualified.) | | To determine most of the possible answers for a question that you plan to use in a questionnaire. To make lists. To identify new needs and situations. To shorten the amount of time interviewers spend writing out responses during a survey. | To know all the common responses to the question, "From where do you buy seeds?" |
| To measure knowledge, practice, and coverage levels. | To determine the percentage of farmers using an improved agricultural technique. To determine the percentage of children who have received the third dose of DTP. | | To adapt a questionnaire and assure that the terms used in the questionnaire are understandable and the best possible ones. (Note: You do not want your KPC interviewers "explaining" questions!) | Asking health workers, "What terms do people here use for weaning? For bottle feeding?" Or for farmers: "What terms do people here use for erosion? For white fly?" |
| | | | To better understand a cultural system (= *ethnography*) or social norms / image regarding something. | To understand the hot-cold food system in order to know what to tell pregnant women they should be eating. To understand how farmers feel about using animal vs. mechanized plowing. |

## Qualitative Indicators within a Quantitative Survey Tool

Qualitative indicators measure the quality of change or improvement. They frequently capture people's judgments and perceptions about a subject, such as the confidence of farmers in new agricultural technologies for raising yields or confidence in the honesty of community leaders. Qualitative data for gender indicators might include the collection of data on women's perceptions of the impact of a program on their lives. Quantifying qualitative indicators is sometimes difficult because these indicators probe into the whys of situations, contexts of actions, and people's perceptions. However, these indicators they are extremely important to the evaluation process because we are interested not only in scope of impact of programs (how many people or how much change), but also the quality of the impact. Qualitative indicators can play a significant role in identifying constraints to implementation and obstacles to success, which would otherwise not be readily apparent.

Just because a result is qualitative, does not preclude developing quantitative indicators that give some measure of progress or magnitude of change. Attitude surveys are one example of an instrument that allows for some quantification of qualitative change. For instance, "70% of women surveyed said they believe that leaders are more honest now than four years ago", or "70% of women ranked the honesty of leaders as high (1-10 scale, 8-10 = high)." When qualitative indicators are quantified, they can be measured and compared over time to find trends that tell where communities have been and where they are likely headed. In this way, they can help us to quantify community well-being in terms of indicator frameworks such as quality of life, sustainability, healthiness, etc. Often times our best "community indicators" are quantitative information about what is often considered a qualitative subject – the well-being of communities.

The key to any good results indicator is credibility. Some qualitative indicators may be unquantifiable or difficult to quantify, such as stories women tell about improvements in their sense of self esteem as a result of program interventions. Unquantifiable qualitative indicators such as stories can be helpful narrative indictors of change which depict the story of what has happened and why. These indicators often have considerable value as marketing tools; however, they are generally not useful in establishing a credible baseline for food security programs against which we or others can objectively judge program impact.

# 3.2  STEPS IN CONDUCTING A BASELINE STUDY

Conducting a baseline study can be a time consuming and expensive process, it is therefore important that the study be well designed to get the best possible results with the limited resources available.  The list below shows a typical sequence of the steps involved with conducting a baseline survey and may be used as a helpful checklist in planning baseline studies.

## Pre-Implementation Phase

- Information review: Review of existing program documents (macro-targeting report, HFSA report, project proposal and logframe (objectives and indicators), etc.
- Prepare a research outline: A short paper that outlines the problem to be addressed, general ideas on information requirements, detailed program objectives and a clear list of research questions that need to be answered. Research questions must include questions that will provide data needed to establish starting points for key indicators which will be monitored and evaluated over the life of the program.  Typically many of the research questions will have been defined in collaboration with community members and program stakeholders in the context of problem analysis/program design workshops and will be detailed in the Program M&E Plan (see *Documenting the M&E Plan* in Chapter 5 of this manual).  If the program design is "holistic", research questions to be answered in the baseline study will be included to capture information needed to track changes over time related to physical, social, spiritual and mental needs of people within the survey population.
- Compare and select among alternative research methodologies: Choose research methods according to the information you need to gather.   The primary tool of the baseline study is typically a quantitative survey; however, additional qualitative information may also need to be gathered at this time as noted in the discussion above on research methods.
- Design the sampling strategy and selecting the sampling area.  (See discussion within this section on *Sampling Methodologies*.)
- Determine the baseline study dates/timeline and budget needs: These are typically included in the M&E Plan which should have been prepared prior to the baseline study – see Chapter 5 of this manual.
- Get permissions as needed from groups within country to conduct the study, for example: the Central Statistics Office, MOH, and communities where the study is to be conducted.
- Develop a logistics plan for all phases of the baseline study.
- Draft the baseline study forms.
- Discuss and modify the draft research forms.
- Adapt, translate (and back-translate) research forms.
- Field test of the draft forms and working procedures (pre-testing the research instruments).
- Prepare the final baseline study forms and related training materials for the study team.
- Plan the staff training program.
- Develop procedures for quality control during data collection/data entry.

- Recruit and train personnel (supervisors, interviewers, etc.).
- Draft a data tabulation plan: Develop data entry, error-checking and data analysis programs.  Plan tabulation, analysis and feedback sessions.

## Baseline Study Implementation Phase

- Conduct the staff training.
- Conduct interviews (and supervise field workers).
- "Clean" the questionnaires in the field as data is captured: Check through the forms as data is being collected to ensure proper use of the forms, completeness, correct coding, check for responses within established "reasonable" limits, data "skips" were properly followed, etc.  There is a saying that relates to surveying: "garbage in, garbage out".  If data is not properly collected, it will be difficult if not impossible to tabulate and analyze the data effectively.

## Post-Implementation Phase

- Complete data entry/data cleaning (final check of forms, editing and coding work as needed).
- Tabulate and analyze survey data: Prepare data tables; calculate summary statistics, prepare charts and graphs, other data analysis.
- Study the findings and draw conclusions from the data: Identify and prioritize problems suggested by the data.
- Draft the survey report.
- Hold feedback sessions with the communities surveyed and with other primary stakeholders.
- Review the original program strategy and analyze it in light of the baseline data. As necessary, revise action plans for addressing problems identified by the baseline study.
- Plan and conduct follow-up qualitative research or special surveys if necessary.
- Finalize the survey report and disseminate findings.

# 3.3 SAMPLING METHODOLOGIES

While FH fields with large food security programs often seek assistance from a statistician trained in survey research to assist with developing an appropriate sampling strategy, it is important that food security program managers have a least a basic understanding of sampling methodologies.

Usually there is not enough time or funds available to interview every single mother or farmer within the target population, let alone every single person within the community. We therefore often need to "sample" a smaller group which will be "representative" of the target population. How well the sample we select will accurately represent the entire target population depends on two factors: 1) the size of the sample and 2) how the sample is selected.

Before we look at some of the different methods for properly selecting a sample, let's look at an example of why you cannot just pick a sample haphazardly. Let's say that a big chicken farmer asks you to find the proportion (percentage) of his chickens that weigh more than 1.5 kilograms. There are more than 1,000 chickens on his land, but you only have time to weight 100. You want your sample to be representative of all the chickens on the farm, that is to say, you want the proportion of sample chickens that weigh more than 1.5 kg to be similar to the proportion of all the chickens that weigh less than 1.5 kg. It would probably be easier to catch the slow-moving chickens! But of course, the slower chickens would have more chance of being fat (heavy). This example illustrates the importance of using a "random sample", in order to avoid a biased sample that may give a misleading picture of the target population by favoring some parts of the population more than others.

Random sampling is selection based on chance; in other words, all units in the target population have an *equal* chance of being selected. Selecting several houses near the center of a village is not random. Selecting every third person in a list is *not* random. (It's called systematic sampling, which we will talk about later.) There are several methods of selecting a random sample, we will explore a few of the most common of these below.

## Simple Random Sampling

One type of random sample is (1) a simple random sample. Don't let the name fool you: it's not the simplest type to use, it just sounds simple. For example, you have a list of each person that could possibly be interviewed (e.g., all mothers of children 0-2 years old) with each person's name on a slip of paper. You put it in a box, close your eyes, shake up the box, and select 200 slips of paper. Those 200 people are the people you would need to find and interview in your survey. They are the people in your sample. These 200 names could be chosen by assigning each person a number then selecting 200 numbers randomly (e.g., using a random number table, or a currency note).

To do simple random sampling, you need a complete list of every person (or unit, e.g., household) in the area where you are doing the survey. This usually is not possible. Even if you have that list, you will then need a way to quickly find out where each person in your sample lives so you can identify them. You will probably have to do a lot of walking within the community since the households selected most likely will not be very

close to one another, but rather scattered throughout the community. Simple random sampling is not too difficult in many industrialized countries where almost everyone has a telephone and a birth certificate (which makes it easy to choose people and to find them quickly for interviewing). It is very difficult, however, in most developing countries. For that reason, simple random sampling is rarely used in developing countries.

Even a random sample might select units (e.g., people) that are not fully representative of a population. For example, you may have 10% of your population who speaks Shangaan where only 5% of your random sample may be people who speak Shangaan. We would say that the Shangaan speakers were "under represented". A way to prevent this -- to reduce this "sampling error" -- is by using another sampling method that is called "Stratified Sampling."

## Stratified Sampling

To conduct stratified sampling you first divide the population into smaller groups called "strata" based on a characteristic (or "attribute") that might be related to what you are studying (for example, primary language since mothers who speak Shangaan might have very different knowledge of ORT than mothers who speak Portuguese). Once you have the population divided into similar groups (e.g., by listing them separately), you include the proper percentage of members from each group to be in your sample. If 10% of the population are Shangaan speakers, you want 10% of your sample to be Shangaan speakers. For example, from the chicken farm example, you may believe that the type of chicken is related to weight, so you might choose to stratify the flock into layers (egg production birds), setting hens (needed to continue the flock), and roosters. You would then draw the same proportion of birds from each of these groups (e.g., 80% egg layers, 12% setting hens, and 8% roosters) to assure that your sample is representative. Then you combine those samples into one large sample. To do this, it is helpful to know the population of each stratum (e.g., how many chickens there are of each type). The formula for selecting the sample size is:

$$n(i) = (N(i) / N) \text{ X } n$$

where n(i) is the sample size from stratum Ai, N(i) is the total number of chickens in stratum Ai, and N is the total population of chickens, and n is the total sample size. Stated in words: the number of individuals from stratum Ai = Total number of individuals in stratum Ai divided by the total number of individuals in the population multiplied by the total sample size.

An example: Let's say we wanted to find out what proportion of a population of 1,000 children all aged between 0-4 years had experienced an episode of diarrhea in the previous two weeks. Since diarrhea episodes are often more common in younger children, we want to make sure that our sample contains the same proportion of children 0-11 months old as children 1-2 years old, etc., as the population of 1,000 children. You may get this result by chance (simple random sampling), but if you wanted to guarantee that the sample contains the same proportion of children in the different age groups, you would need to use a stratified sample. Let's say you have 200 children 0-11 months, 400 1-2 years, and 400 3-4 years. Assume that we have already determined that our total sample will contain 100 children. (The formula for that is discussed below.) How many 1-2 year olds should our sample include? Using the formula above, would give: n(i) = 400 / 1,000 X 100 = 40 children. So our sample of 100 children should contain 40 children randomly chosen from the 1-2 year old age group.

# Lot Quality Assurance Sampling (LQAS)

Lot Quality Assurance Sampling (LQAS) is a type of stratified sampling.  It was initially designed in the 1920s as a relatively easy and cost effective sampling method to assess the quality of industrial products.  In order to minimize the cost of quality control, a sample of "lots" of goods are inspected; those lots with less than a pre-determined number of defective pieces are considered of acceptable quality, and those lots with more than the number of defective pieces are "rejected". Over the past few decades, LQAS has been adapted by development professionals and is now being used extensively for both monitoring and evaluation.

In summary, the hallmark of LQAS is the division of the target population into smaller, administratively-meaningful units (supervision areas) and the selection of small, random samples from each of those units. The data collected from these stratified random samples provide supervisors and program managers with a sufficient amount of information to make management decisions.  In addition to enabling managers to monitor sub-divisions within their project area, LQAS also allows you to aggregate data across sub-divisions so that you can obtain a coverage estimate for the entire project area.

As an evaluation tool in baseline assessments and evaluations LQAS is typically used to measure coverage of services, as a monitoring tool it is also used to measure both coverage and quality of services to provide managers with sufficient information to make informed and timely management decisions.  Examples of appropriate uses for LQAS include the following:

- Health -- assessing coverage of key health knowledge and practices in maternal and child health, family planning and HIV/AIDS programs; assessing disease prevalence; assessing the quality of service related to health worker performance, immunization services, growth monitoring and promotion, nutrition counseling,  diarrhea case management and other service delivery skills.

-  Commodity Management -- assessing management of food commodities such as inventory and tracking systems for commodity movement; appropriate storage facilities and practices; and traces of losses (due to water, rodents, etc.).

- Food For Education – assessing levels of attendance or student performance; teaching quality; meeting minimal standards for equipment and infrastructure, adequacy of support systems (is the PTA active); etc.

- Food for Work – assessing compliance with EIA standards, etc.

- Agriculture – assessing coverage of key agricultural knowledge and use of improved technologies; assessing quality of promoter teaching skills, assessing pest prevalence; etc.

In conducting LQAS, typically 19 random samples per *supervision area* (SA) provides an acceptable level of error for making management decisions; that is to say that at least 92% of the time it correctly identifies SAs that have reached their target coverage.  But it is important to understand what this sample of 19 can and cannot do.  It can detect with precision the extreme ends of performance; i.e. obviously good performance and obviously poor performance.  However, it is not intended to detect the exact level of performance.  For instance, while LQAS can identify supervision areas with vaccination coverage above or below 85%, it will not give us exact performance levels for each area.

A sample of 19 can help us in:

- Deciding what are the higher performing supervision areas to learn from

- Deciding what are the lower performing supervision areas

- Differentiating knowledge and practices that have high coverage from those that have low coverage

- Setting priorities within a supervision area

- Setting priorities among supervision areas with large differences in coverage

- Calculating the value of coverage for an entire program (put not within a supervision area)

A sample of 19 cannot help us in:

- Calculating the value of coverage within a supervision area

- Setting priorities among supervision areas with little difference in coverage

To learn more about when and how to conduct LQAS refer to the links to LQAS training manuals provided at the end of the sampling methodologies section.

## Systematic Sampling

Systematic sampling can be done from a list of sampling units just like a list used for simple random sampling.  First, you need to determine something called the "sampling interval".  To get the sampling interval, you divide the population by the sample size.  For example, if you had a total population of 155,000 and needed a sample of 250 individuals: 155,000 / 250 = 620.   So to obtain a sample of 250, you would take every 620th sampling unit in the survey.  To choose the participants in the survey, you would start by choosing a starting point in your list: Pick a number between 1 and 620 randomly.  For example, let's say you chose 415.  You would start with the 415th person in your list, then select the next one by adding the sampling interval 415 + 620 = 1,030th person.  Then 1030 + 620 = 1,650th person, etc.  This is sometimes faster than simple random sampling, but it still means that you need to find each individual and that they could live very far from each other.  There is an easier way:  a sampling system that is more appropriate for developing countries when you often do not have lists of all the people in your area, and do have difficult terrain to cover, and a limited amount of time and money to do the survey.  This method is called . . .

## Cluster Sampling

With cluster sampling, clusters (not individuals) are randomly selected from the general population.  Several individuals within each cluster are then interviewed to reach the desired sample size.  A cluster is a naturally occurring group of individuals (such as a village, ward, or city block) likely to include the population group your project is interested in studying.  For instance, a child survival program may be interested in children less than 24 months and their caregivers and for the USAID rapid KPC survey you need 7 to 10 interviews per cluster in households with children under 24m of age.  Therefore, each cluster should include seven to ten households with children under 24m.  If a project area is very small, you use "single-stage" cluster sampling.  Usually,

however, you use "multi-stage cluster sampling".  The rapid KPC uses two-stage cluster sampling:  First, you use a random process to select the *communities* where the clusters are located.  Second, you use a second random process to select the first household from which you will begin to select the *groups of households* where interviews will be conducted.  (The cluster is the population living in these households.)

There are two major *advantages* of cluster sampling: (1) You don't need a list with all the names of the individuals in the project area with some way to know how to get to their home. (2) By interviewing a number of people who live in the same cluster, it reduces time and travel costs between interviews.  Cluster sampling is also useful for designing some specific health education messages and intervention strategies.  One *disadvantage* of cluster sampling is that it increases the sample size required.  You have to interview more people (to achieve a given level of precision).  However, even with this increase in sample size it almost always takes less time to conduct than the other methods.  It is generally said that the size of most cluster samples does not allow measurement of the extent of change from baseline to final, but it does allow you to say whether there was change.  In other words, you can determine whether or not there was significant change, but you cannot always quantify that change.  Figure 20 below summarizes some of the advantages and disadvantages of each of the sampling methods described above.

**Figure 20:  A Comparison of Simple Random, Cluster, and Stratified Sampling[24]**

|  | SIMPLE RANDOM SAMPLING (SRS) | CLUSTER SAMPLING | STRATIFIED SAMPLING |
|---|---|---|---|
| **General Description** | Sampling units are selected *randomly* from a *sampling frame*.  Every element in the sampling frame has an equal chance of being included in the sample. | Clusters (rather than individuals) are randomly selected.  Cluster selection is based on probability proportional to size so that large communities have a greater chance of having clusters than smaller communities.  Within each cluster, several individuals are randomly selected to reach the desired sample size. | The target population is first divided into *strata*, then a random sample is selected from each stratum, ensuring that individuals from every stratum are represented in the sample. |
| **Design Effect** | None. SRS is the standard against which all other sampling designs are compared when estimating the design effect. | A bias that results from randomly sampling clusters, rather than individuals. Usually between 1.5 and 2. To be conservative, assume a design effect of 2.  That means that there must be twice as many respondents in a cluster sample compared to a SRS, in order to compensate for the design effect. | Stratified sampling is more precise than SRS, provided that the strata are homogeneous and sampling units (households, individuals) within each strata are selected randomly. |
| **Sample Size** | Equal to 96 for a cross-sectional study with no comparison groups. | At least two times larger than a SRS to compensate for the design effect. (Usually 300 samples are recommended.) | Can be smaller than both SRS and cluster sampling (for example, when using Lot Quality Assurance Sampling (LQAS)). |
| **Advantages** | Straightforward to execute if a sampling frame is available. | • Saves time by surveying several individuals within a cluster rather than repeating the process of randomly | • Ensures that groups of interest are covered in the survey. |

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[24] The KPC2000+ Field Guide.

| | | | |
|---|---|---|---|
| | | selecting each individual to reach the required sample size for the survey (as done with SRS).<br><br>• Cheaper to execute than SRS.<br><br>• Maximizes variability in the sample while minimizing study costs.<br><br>• Efficient way of sampling in dispersed populations.<br><br>• A good option when little is known about the study context. | • The standard error of each estimate is based on the variation <u>within</u> homogeneous strata. Because of this, stratified sampling yields estimates that are more precise than estimates from SRS or cluster sampling.<br><br>• There is the option to disproportionately sample within strata to get enough cases from each strata in your sample (important if you want to make comparisons between strata). |
| **Disadvantages** | • Requires a complete and up-to-date sampling frame, which is usually not available for large populations.<br><br>• All groups of interest might not be included in the sample.<br><br>• Expensive and inefficient in large or dispersed populations. | • Cannot get estimates for subdivisions within the program area.<br><br>• A bias (the design effect) is introduced by interviewing persons in clusters rather than as randomly selected individuals.<br><br>• Lower precision than SRS or stratified sampling because standard errors (measures of precision) are based on variation <u>between</u> homogeneous clusters. | |

## Links to Additional Resources on Sampling Methodologies

1. Chapter 5 of the linked *KPC 2000+ Field Guide*, Chapter 5 Design a Sampling Strategy, pgs. 37-78. KPC 2000+ on CD [Engish, WINZIP]. *KPC2000+ Field Guide,* Child Survival Technical Support Project (CSTS) and the CORE Monitoring and Evaluation Working Group (MEWG), 2000.
2. The FANTA *Sampling Guide.* In English, Spanish or French. Magnani, Robert. *Sampling Guide* (1997). The Food and Nutrition Technical Assistance (FANTA) Project, Academy for Educational Development. FANTA website: http://www.fantaproject.org      FANTA Sampling Guide on CD [English]
3. *Assessing Community Health Programs - using LQAS for Baseline Surveys and Regular Monitoring.* Participants Manual and Trainer's Guide. J Valadez, W Weiss, C Leburg, R Davis, 2002. LQAS Participant Manual on CD and the LQAS Trainer's Manual on CD
4. *CORE M&E Working Group LQAS Online Series*: The CORE Monitoring and Evaluation Working Group offers a series of recorded lectures and PDF slides online on the use of Lot Quality Assurance Sampling (LQAS) for monitoring and evaluation purposes. The lectures, targeted primarily to implementers of Child Survival and Maternal Child Health programs, are posted on CORE's web site for universal access. http://www.coregroup.org/conf_reg/lqas_series.cfm

# 3.4  THE QUANTITATIVE BASELINE SURVEY

Typically a quantitative survey is the primary means by which to measure change for many indicators between the project baseline and intermediate or final program evaluations.  This is often a time consuming and expensive process and therefore design of the questionnaire and sampling strategy, implementation of the survey, and analysis of data collected must be carefully planned and executed.

In recent years, three types of survey tools, or modifications thereof, have become widely used within food security programs for establishing baseline information and for subsequent collection of data for mid-term and final evaluations.  They are 1) Knowledge, Attitudes and Practices (KAP) Surveys, 2) Knowledge, Attitude, Belief and Practice (KABP) Surveys and 2) Knowledge, Practice and Coverage (KPC) Surveys.

## KAP Surveys

KAP stands for "knowledge, attitudes, and practices".  Research that measures KAP is based on the assumption that a person's knowledge influences their attitude, which in turn influences their practices (behaviors).   KAP questionnaires involve written, standardized questions, many of which are typically composed of yes/no or multiple choice questions.  For instance, KAP questions in an HIV/AIDs survey might include questions such as:  Do you know how HIV/AIDS is transmitted?  Would you share a meal with someone who is HIV positive?   Did you use a condom at your last sexual encounter?  KAP surveys are useful for finding out what your target group already knows and does, for giving insight into a large group of people in a short time frame, and for establishing baseline needed to paint a before-and-after picture of a program's success in changing knowledge, attitudes and behaviors.  One weakness of the KAP approach is that knowledge of an issue does not always result in a change of attitude and behavior, as underlying beliefs may remain intact despite the acquisition of new "knowledge".

## KABP Surveys

The weakness of KAP surveys has led to some researchers to modify KAP surveys into Knowledge, Attitude, Belief and Practices (KABP) Surveys.  KABP surveys have been used extensively related to programs that focus both on modifying beliefs and improving knowledge as a means to bring about changes in behaviors.  For example, KABP surveys in HIV/AIDs programs have been used to explore KABP of school children related to sexual activity and its relationship to the transmission of HIV/AIDs, and to explore the KABP of doctors, dentists and other care givers for HIV infected patients.  KABP surveys have also been used to explore KABP related to tobacco use including: level of tobacco-use, age initiation of cigarette use, exposure to tobacco advertising, and the influence of beliefs and attitudes on behavioral norms with regard to tobacco use that can be used in prevention programs.  KABP surveys are useful for finding out what your target group believes, as well as what it already knows and does, and for establishing a baseline needed to paint a before and after picture of beliefs as well as KAP.

# KPC Surveys[25]

Knowledge, Practices, and Coverage (KPC) surveys have become a mainstay in child survival (CS) programs. Other fields such as food aid are also beginning to recognize the usefulness of KPC surveys in program planning, monitoring, and evaluation.

In the late 1980s, the United States Agency for International Development (USAID) asked the Johns Hopkins University Child Survival Support Program (JHU CSSP) to develop a rapid, easy-to-use way of assessing PVO child survival activities. After meeting with individuals from different PVOs, the JHU CSSP developed a KPC survey with 56 questions and 17 key indicators. The KPC has met a great need among PVOs, which often lack staff with extensive M&E training.

The original questionnaire has recently been revised and is now called the KPC2000+. The Child Survival Collaborations and Resources Group (CORE), which is the child survival equivalent to FAM, and the Child Survival Technical Support Project (CSTS+) revised the questionnaire based on PVO requests to include topics such as anthropometry, malaria, and HIV/AIDS in the survey. The KPC2000+ includes 15 modules on key program areas related to child health and survival, as well as the Rapid CATCH (Core Assessment Tool on Child Health).

The Rapid CATCH contains 26 questions that are linked to 13 key child health indicators and is designed to be the starting point when developing a KPC survey. One of the indicators, the percentage of children who are underweight, is also a Title II impact indicator. In the PVO CS community, this indicator has been identified as a sentinel measure of child health and well being.

The questions in the Rapid CATCH were taken from the 15 KPC 2000+ modules and thereby are used to provide a snapshot of the target population in terms of child health. However, the Rapid CATCH questions are not context specific. In order to design a survey that reflects the local context and the objectives and activities of each project, PVOs are encouraged to select relevant questions from some of the following KPC2000+ modules:

- Module 1A: Water and Sanitation
- Module 1B: Respondent Background Information
- Module 2: Breastfeeding and Infant/Child Nutrition
- Module 3: Growth Monitoring and Maternal/Child Anthropometry
- Module 4A: Child Immunization
- Module 4B: Sick Child
- Module 4C: Diarrhea
- Module 4D: Acute Respiratory Infections
- Module 4E: Malaria
- Module 5A: Prenatal Care
- Module 5B: Delivery and Immediate Newborn Care
- Module 5C: Postpartum Care
- Module 6: Child Spacing
- Module 7: HIV/AIDS and Other Sexually Transmitted Infections
- Module 8: Health Contacts and Sources of Information

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[25] Adapted from Child Survival Technical Support Project, *Using Knowledge, Practices and Coverage (KPC) Surveys to Plan, Monitor, and Evaluate Food Aid Projects*, by Donna Espeut (childsurvival.com).

## The Purpose of a KPC Survey

The KPC provides the PVO and other stakeholders with important information on project beneficiaries (such as children under age two) that can be used to plan and assess the effectiveness of the PVO's interventions. Over the years, the tool has been linked to a standard set of indicators, providing PVOs with a standardized way to document what they are doing.

The KPC is a small-sample survey that is usually limited to 300 respondents. Traditionally, KPC samples have been limited to mothers of children less than two years of age. Respondents are usually selected using a 30-cluster sampling design. Currently, PVOs are beginning to collect information from different types of respondents (for example, men and non-maternal caregivers) and experiment with different sample designs, in particular, methods that can be built into project monitoring activities.

A KPC survey is very useful during the planning stages of a project. At the beginning of a food aid project, a PVO can use the KPC to document the baseline status of the target population with respect to its health and nutritional status, water and sanitation, and food consumption. This information (along with data from other sources) can then be used to prepare the project's Detailed Implementation Plan. KPCs can also play a role later on in the project. For example, a PVO can use special information-gathering strategies and a few questions from its baseline KPC survey to regularly assess whether it is making progress toward its objectives. Finally, at the end of a project, a PVO can conduct another full-scale KPC survey (similar to the baseline) to determine whether the project met its program objectives.

Food aid projects can use the KPC2000+ to collect information on many of the Title II generic indicators (as presented in FANTA's Draft Anthropometric Indicators Measurement Guide). At present, the KPC2000+ does not include questions on other important Title II issues such as food security or agricultural productivity. However, as a reminder, the KPC2000+ is a generic tool. Each project is encouraged to modify the tool (for example, add or subtract questions, change the response categories for particular questions, use context-specific terms) so that the questionnaire reflects the project and the context in which it is working. The suggested indicators were designed to guide PVOs in measuring results in a standard fashion across projects. However, projects have the flexibility to adapt the KPC to include questions that will provide useful data for program decision-making.

The *KPC2000+ Field Guide* provides excellent and broadly applicable guidelines regarding the steps, considerations and processes involved in baseline surveying which were only briefly introduced at the beginning of the introduction to baseline surveying contained in this manual.

[Link to KPC 2000+ on CD](#) [English, WINZIP]
[Link to KPC 2000+ on CD](#) [Spanish, Word]
[Link to KPC 2000+ on CD](#) [French, WINZIP]

The *KPC2000+ Field Guide* may also be downloaded at: [http://www.childsurvival.com](http://www.childsurvival.com).

**Examples of FH KPC Surveys**

The following links provide examples of KPC questionnaires developed and used by FH fields.

Agricultural Production KP Questionnaire
Moz Child Survival KPC Feb 8th (0-11m old children)
Moz Child Survival KPC Feb 8th (12-23m old children)
HIV/AIDS ABY KPC questionnaire INFLUENCERS of Single Youth
HIV/AIDS ABY KPC questionnaire MARRIED People
HIV/AIDS ABY KPC Survey SINGLE Youth No Parental Consent for Sensitive Questions
HIV/AIDS ABY KPC Survey SINGLE Youth

# 3.5 SPECIALIZED MEASUREMENTS

In a health component of food security programs, it is often necessary to use specialized measurements in order to determine the growth of a child.  Similarly, in an agriculture component, it is often necessary to use specialized measurements to determine things like crop yields and yield gaps.  Likewise other specialized indicators and measurements are often needed for other areas of intervention.  The Food and Nutrition Technical Assistance (FANTA) Project website maintains a wide variety of frequently updated online documents and guidelines about these specialized measures that may be downloaded at the FANTA website at  http://www.fantaproject.org.  Below are just a few of the documents currently available for download through FANTA:

- *Agricultural Productivity Indicators and Measurements Guide* (1997).  Link to document on CD.
- *Anthropometric Indicators Measurement Guide* (2003)*.*  Link to document on CD.
- *Food Security Indicators and Framework for use in Monitoring and Evaluation of Food Aid Programs* (1999)*.*  Link to document on CD.
- *Water and Sanitation Indicators Measurement Guide* (1999)*.*  Link to document on CD.
- *Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide.*  Link to document on CD.
- *Months of Inadequate Household Food Provisioning (MIHFP) for Measurement of Household Food Access Indicator Guide* (2005).  Link to this document on CD.
- *Measuring Household Food Consumption: A Technical Guide* (2004): The guide describes the process and procedures for collecting information to assess the food intake requirements of a household and a step-by-step analysis of the food consumed. Appendices present detailed information about analyzing the data.  Link to document on CD.

Note that the documents listed above were available on the FANTA website in February 2006.  Updates to some of these documents and/or new methodologies and guidelines may be posted periodically on the FANTA website so reviewing this website periodically is recommended.

## Estimating areas of production

Estimating areas of production for agricultural projects is often a time consuming and expensive process.  A simplified method of conducting these estimates is provided in the linked paper on Estimation of Area and Production of Root and Tuber Crops in Rwanda, presented by Edson Mpyisi at the FAO Expert Consultation on Root Crop Statistics in Harare, Zimbabwe in 2002.  Link to document on CD.

# 3.6  DATA ANALYSIS SOFTWARE

A wide range of computer software is available to tabulate and analyze numerical and textual data related to baseline surveys.  Costs of software, the functions they perform and technical skills needed to use them vary considerably.  Software chosen should be appropriate for needs and circumstances particular to each field.

One program which is available free (or at minimal cost for some translated versions) is Epi Info.  Epi Info may be downloaded free at http://www.cdc.gov/epiinfo/.  With Epi Info one can rapidly develop a questionnaire or form, customize the data entry process, and enter and analyze data. Epidemiologic statistics, tables, graphs, and maps can be produced with simple commands.  Epi Info is available for use with MicroSoft Windows and is available in various languages including English, Portuguese, Spanish and French.

Also worth mentioning, in recent years FH/Bolivia has begun using Pocket PCs  and applications specially-designed using Pocket PC Creations software as a tool within their M&E system.  Noted below are just a few of the advantages of using Pocket PCs over paper survey instruments:

- Improved error-checking during data entry;
- A faster turnaround time with data (data need not be re-entered into a computer to analyze it);
- Increased capacity to perform complex calculations that are sometimes difficult and time-consuming on paper (nutritional status of children, size of farmers' fields, etc.);
- Improved efficiency and effectiveness; and
- Expandability (for instance, a GPS unit can be added to measure land areas or mark community locations during a survey).

# 3.7  BASELINE TOOLS FROM FH ISA/ICB WORKSHOPS

Tips for Constructing and Using KPC Questionnaires [Word]

Training of Enumerators and Supervisors [Word]

## Acknowledgements and Resources

*KPC2000+ Field Guide,* Child Survival Technical Support Project (CSTS) and the CORE Monitoring and Evaluation Working Group (MEWG), 2000.  Website: http://www.childsurvival.com.

*Review of Health and Nutrition Project Baseline Research Methods of Title II,* Funded PVOs, Prepared for Food Aid Management by Patricia A. Haggerty, Ph.D., October, 2000.  http://www.foodaid.org/worddocs/moneval/HNSurveyReviewWeb.doc

The Food and Nutrition Technical Assistance (FANTA) Project website http://www.fantaproject.org

Magnani, Robert.  *Sampling Guide* (1997).  The Food and Nutrition Technical Assistance (FANTA) Project, Academy for Educational Development.

USAID/GN/HIDN/Child Survival and Health Grants Program, *Technical Reference Materials – Monitoring and Evaluation*, August 2004. http://www.coregroup.org/working_groups/ME_TRMS_2004.pdf (This document contains a long bibliography of M&E references, many of them available on-line, that are helpful in designing baseline studies.)

Center for Disease Control and Prevention.  Website http://www.cdc.gov/.

Nichols, Paul.  *Social Survey Methods, A Fieldguide for Development Workers.*  Oxfam (1991)

Department for International Development (DFID).  *Monitoring and Evaluating Information and Communication for Development Programmes – Guidelines* (2005). Website: http://www.dfid.gov.uk/pubs/files/icd-guidelines.pdf

# CHAPTER 4: INNOVATIVE PROGRAM IMPLEMENTATION TOOLS

## REVIEW

**Chapter 1** of this manual we provided a framework for designing high quality food security programs, detailed a four-step method for *macro-targeting*, described the purpose of, and steps for, conducting a *HFSA* and introduced a variety of tools (*RRA/PRA/HCA and AI*) that may be used as part of the HFSA process.

**Chapter 2** of the manual explored the five steps of program design: *analysis of the operating environment*, *problem identification and analysis, development of the program strategy, design of the M&E system and resource planning.*

**Chapter 3** of the manual introduced the activity that typically signals the start of program activities, the *baseline study*. Within this chapter we considered *qualitative and quantitative research methodologies*, introduced *sampling guidelines*, introduced *guidelines for conducting quantitative baseline surveys*, and introduced various guidelines and tools for *specialized measurements* often associated with baseline surveys for food security programs.

## INTRODUCTION TO CHAPTER 4

In **Chapter 4** of this manual we will turn our attention toward program implementation and will explore a variety of sound practices and innovative tools that have proven to be helpful and effective in achieving FH food security program goals over the past several years. Here is a brief description of the practices and tools we will be exploring in this Chapter:

*4.1 Training and Adult Learning – Methods and Messages* – explores the Five Key Principles of Adult Learning, VAK Learning Styles, the Seven Steps for Designing Structured Learning Sessions, Achievement-based Objectives, Instructional Plans & Lesson Plans, Guidelines for Developing Key Messages and several Adult Training Methodologies.

*4.2 Positive Deviance / HEARTH Nutritional Rehabilitation Programming in Nutrition* – explores a development approach based on the premise that solutions to community problems already exist within the community.

*4.3 Use of Care Groups* – explores a Care Group methodology where volunteer mothers responsible for 10 to 15 households in their respective village. These women are the conduit through which FHI professionals channel their teaching. A single promoter then educates and serves 80 to 100 volunteer mothers, who in turn collectively reach up to 1,000 more beneficiary mothers and their households.

*4.4 Trials of Improved Practices* – explores a research tool developed to help program planners select and "pretest" the actual practices that the program will promote. TIPS are actual trials, conducted by a small number of families, of proposed improved behaviors.

*4.5 Barrier Analysis* – explores a rapid assessment tool used in community health and other community development projects. This analysis tool is used to identify behavioral determinants connected with a particular behavior so more effective behavior change communication messages can be developed.

# SPECIAL ACKNOWLEDGEMENT

A considerable portion of the information provided in Section 4.1 of this Food Security Program Lifecycle Toolkit has been drawn from the manual Training Methodologies and Principles of Adult Learning, Application for Training in Infant and Child Nutrition and Related Topics, AED/Linkages (May 2005). The authors of this Food Security Program Lifecycle Toolkit acknowledge with thanks AED/Linkages' willingness to share this excellent resource.

# 4.1 TRAINING AND ADULT LEARNING – METHODS AND MESSAGES

## Description

FH's Vision of a Community (VOC) begins with the statement, "The community and its people are advancing toward their God-given potential…." To achieve this vision, FH staff must have a solid understanding of the principles of adult learning and must be skilled in methods of training, motivating and enabling adults to overcome barriers and shape their own futures. Virtually every FH program involves effectively helping individuals and communities to:

- Evaluate their own experiences, beliefs and values;
- Acquire new knowledge and discover truth (transcendent fundamental reality);
- Examine and identify aspects of their lives that they wish to change;
- Envision a preferred future;
- Develop critical awareness of the root causes of problems and identify solutions;
- Build new skills;
- Overcome apathy, inertia and/or barriers; and
- Act as necessary to change detrimental beliefs, behaviors and/or systems.

While training and adult learning are essential to community-based programs, FH and other similar organizations often find that many of the professionals we recruit (doctors, nurses, engineers, agronomists, managers, etc.) have little if any education and training related to adult learning. Given this environment, it is frequently crucial to equip staff with the knowledge and skills needed to effectively fulfill the training and facilitation roles encompassed within their broader job descriptions.

The following is intended only as a brief introduction to some of the key principles and practices relevant to effective training and adult learning. For additional information we encourage readers to explore links and references to other excellent resources and tools provided at the end of this Chapter.

## Five Key Principles of Adult Learning Theory

Teaching adults is different from teaching children. As children, our teachers and parents typically knew more than we did and told us what we needed to learn. As adults we may not know as much as the teacher about a specific topic, but we do have a wealth of previously-gained information and life experiences that may relate to any new knowledge or information we acquire. Also, when compared with children, most adults have long established values, beliefs and opinions. As adults we may also be more concerned about our reputations (professional and personal) than children.

Let's explore some of these differences by reviewing five key principles of adult learning theory described on the following page.

**Figure 21: Five Key Principles of Adult Learning Theory**

**Description:** *Adult learning theory* is a set of ideas about how adults learn new information or skills. Adult learning theory, as developed by Malcolm Knowles and Jane Vella, focuses on the idea that adults learn best when they talk to others about their life experiences and when they relate these experiences to the learning process.  It further stresses the following principles for effective adult learning:

| Principle | Description |
|---|---|
| **Respect** | Adult learners learn best when they are shown respect and appreciate it when:<br>   o  Their experience is acknowledged and when new information builds on their past knowledge and experience;<br>   o  They have input into deciding what to learn (based on their needs); and<br>   o  They have input into planning what will happen during learning.<br><br>Application: While delivering training, focus on the assets learners bring to the learning experience, not just gaps in their knowledge. Provide opportunities for dialogue among learners and tap their experience as a major source of enrichment to the training.  Show respect by attentively listening to the learners' points of view. |
| **Safety** | Adult learners do not want to be judged, they:<br>   o  Have established values, beliefs and opinions;<br>   o  Want to be recognized or affirmed, appreciated for their contributions and life experience; and<br>   o  Need to feel welcome and comfortable during the learning experience.<br><br>Application:  Provide a safe environment for differing beliefs, religions, value systems and lifestyles.  Let learners know they are entitled to their values, beliefs and opinions, but allow "safe" debate and challenge of ideas.  Provide a safe environment to admit bewilderment, ignorance, concerns, and different opinions. Treat all questions and comments with respect. |
| **Immediacy** | Adult learners want to immediately apply new information or skills to current problems or situations.<br><br>Application: Design learning tasks to have immediate usefulness to the learner.  Emphasize how learning can be applied immediately in a practical setting.   Use case studies, problem-solving groups, and participatory activities to enhance learning and demonstrate the immediate usefulness to the learner. |
| **Relevance** | Adult learners want to apply new information or skills to what they already know or can do, and want to know that what they're learning will be useful in the future.<br><br>Application:  Conduct a Learning Needs Resource Assessment (LNRA) to determine what the learners' needs and interests are before designing the training program.  Emphasize how learning is applicable to daily life, now and for the future. |
| **Engagement** | Adult learners learn best when actively involved in learning.<br><br>Application: Actively involve learners by engaging all of their senses and attention into discovering something new.  (Studies show that over a period of 3 days, the retention of learning is 20% of what we hear, 50% of what we hear and see; and 90% of what we hear, see, say and do.) |

## Important Learning Styles

The three main styles of learning are typically categorized as **V**isual, **A**uditory, and **K**inesthetic (VAK).  Throughout our lives, we use all of our senses to learn, but most of us tend to consistently favor one sense over the others. This natural preference dictates how we learn best - by looking, listening or moving. Some people may have an extreme preference for one of the three styles of learning, while others may be fairly balanced in two, or fairly balanced among all three.  None of the three is intrinsically better than the others.  Here are some hints for recognizing the three learning styles and for incorporating techniques into your training sessions that will benefit learners with each learning style:

### Visual

Visual learners can be separated into two main groups, linguistic and spatial.  Learners who are *visual-linguistic* like to learn through written language, such as reading and writing tasks. They remember what has been written down, even if they do not read it more than once. They like to write down directions and pay better attention to lectures if they watch them. Learners who are *visual-spatial* usually have difficulty with written language and do better with charts, demonstrations, videos, and other visual materials. They easily visualize faces and places by using their imagination and seldom get lost in new surroundings. To integrate this style into the learning environment it is helpful to use visual aids such as graphs, charts, or illustrations.  It is also helpful to include outlines, agendas and handouts for reading and taking notes, and to include plenty of content in handouts to reread after the learning session.  Because unnecessary movement can be a distraction to a visual learner, it is helpful to eliminate potential distractions.  Visual learning may also be enhanced by having the learners envision the topic or have them act out the subject matter.

### Auditory

Auditory learners learn best if there is an oral component to the material being learned.  Verbal instructions, taped lectures and face to face instruction work best.  When problem solving auditory learners prefer to "talk things out".   They also may move their lips and read out loud. They may have difficulty with reading and writing tasks and unnecessary noise can be a distraction for the auditory learner.  To integrate this style into the learning environment:  Begin new material with a brief verbal explanation of what is coming. Conclude with a verbal summary of what has been covered.  Question learners to draw as much information from them as possible and then fill in the gaps with your own expertise.   Include auditory activities, such as brainstorming or buzz groups and be sure to leave plenty of time for debriefing activities as this allows auditory learners to make connections with what they learned and how it applies to their situation.

### Kinesthetic

Kinesthetic learners include two sub-groups of learners; kinesthetic (movement) and tactile (touch).  People who have a kinesthetic or tactile learning styles learn best when they can touch or feel what they are learning about and have a tendency to move around while trying to solve a problem.  The use of their body and feelings are very important to these learners, so hands-on projects work best for them.  Kinesthetic learners tend to lose concentration if there is little or no external stimulation or movement. When listening to lectures, they may want to take notes. When reading, they like to scan the material first, and then focus in on the details (get the big picture first). They often like to use

color highlighters and take notes by drawing pictures, diagrams, or doodling. To integrate this style into the learning environment it is helpful to integrate activities that get the learners up and moving and to give them frequent stretch breaks. Use colored markers to emphasize key points on flipcharts or white boards; integrate activities that give them something to do with their hands (for instance, building models with clay).

As trainers, we need to present information using all three styles. This allows all learners, regardless of their preferred style, the opportunity to become involved in learning. It also allows a learner to be presented with the other two methods of reinforcement. Although we may prefer one style, this does not mean that the other two learning styles do us no good. On the contrary, they help us to learn even faster by reinforcing what we learn.

You can learn more about your own learning style by taking a Vision, Auditory and Kinesthetic Survey by clicking on the following link (link to document on CD) or you can take the survey online at http://www.nwlink.com/~donclark/hrd/vak.html.


## 7 Steps of Design of Structured Learning Sessions

Having briefly reviewed the five key principles of adult learning theory and the three major learning styles (VAK), we will turn our attention briefly to steps for designing structured learning sessions. To prepare training based on the principles of adult learning, trainers must not only know the content, but must also think about the process of the training and how to deliver the content. As "experts" in their field, trainers know the content well; the challenge trainers face however is how to deliver that content to a specific audience. While there are many recipes or guidelines for instructional design, a useful one to consider is Jane Vella's Seven Steps of Planning[26]. Unlike many other instructional design guides, Vella's approach focuses on the learner rather than on the trainer. Vella proposes that trainers need to find answers to each of the following questions as they prepare a training:

1. **WHO?** Who are the learners? What are their educational backgrounds, experiences, and levels of expertise? We can gather this information via Learning Needs and Resources Assessment (LNRA) questionnaires sent to participants prior to designing the training event. In addition to probing into the educational background, experience, and expertise of participants, the LNRA should also probe cultural perspectives and immediate needs of participants regarding the training topic.
2. **WHY?** Why are these participants coming together for the training? What is the situation that makes this training important, what is the problem this course must solve?
3. **WHEN?** When will the training be held? How long will the training be? What is the schedule of activities? In addition to considering a time convenient to the learners, it is important to consider timing the training so that learners may immediately apply what they have learned. For instance, one would ideally schedule training on tree pruning just before pruning season begins, and training on baseline surveying shortly before a baseline survey will be designed and implemented.

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[26] Vella, Jane. Learning to Listen, Learning to Teach: The Power of Dialogue in Educating Adults, Jossey-Bass Publishers, San Francisco, 1994.

4. **WHERE?** Is the training situated in the best place to meet the needs of the learners or could a better place be found? Considerations include comfort of the participants, proximity to areas where practical field trips may be realized, etc.
5. **WHAT FOR?** What are the achievement-based objectives (verbs) and why should the learners want to participate? Achievement-based objectives are either cognitive or performance-based behaviors that can be demonstrated. (See discussion on achievement-based objectives below.)
6. **WHAT?** What will be the content of the training? Trainers should reflect on what is relevant and meaningful to the target audience. It is important to think about how and why the content will be meaningful and applicable to the learner's life.
7. **HOW?** How will the content of the training be delivered? What activities and experiences will be used to engage learners? The "how" should reflect what we know about principles of adult learning and about learning styles and will also be influenced by the answers given to the previous six questions.

## Achievement-Based Objectives (ABOs)

Achievement-Based Objectives (ABOs) describe in observable and verifiable terms what the learners will do with the content in order to learn it.

The link between the content and what learners will do with it is one of the significant differences between *learning-centered* and *traditional education* approaches. The traditional education approach is to "cover content", it uses objectives such as, "to learn about", "to understand", "to know" or "to be able to". For instance, traditional education objectives related to irrigation might include, "to develop student understanding of alternative methods of irrigation" and "to familiarize students with the need for adequate drainage."

In contrast, learning-centered ABOs are built upon <u>action verbs</u> that can be verifiably accomplished by the learners and observed by the trainers. For example, learning-centered ABOs related to irrigation might include: "By the end of the training program participants will have:
1. Listed the advantages and disadvantages of flood, furrow, sprinkler and drip irrigation;
2. Determined the soil moisture content using the oven dry method; and
3. Identified moisture deficiency symptoms in maize, bean and wheat crops.

To properly word ABOs, note that each ABO should have an opening statement, for example, "The participant will be able to (action verb)" and a content reference which describes the subject being learned. For example:

**Box 20: Example of ABO Opening Statement**

| Learner (who) | Action verb (how) | Content (what) |
|---|---|---|
| Mothers will have | demonstrated | the correct positioning and attachment of a baby on the breast. |

When developing ABOs people sometimes have difficulty finding action words to describe in observable, verifiable terms what learners will do with the content in order to

learn it.  Review the list of useful verbs for writing ABOs listed below.  What verbs might you add to this list?

**Box 21:  Useful Verbs for ABOs**

| identified | planned | practiced | defended |
|---|---|---|---|
| listed | catalogued | produced | justified |
| defined | classified | demonstrated | argued |
| described | organized | built | persuaded |
| distinguished | differentiated | conducted | selected |
| ranked | prioritized | diagrammed | advocated |
| arranged | designed | performed | expressed |

# Instructional Plans & Lesson Plans

*Instructional plans* are brief outlines of sessions in a set of related training events.  At minimum, an instructional plan should summarize the title, number of sessions, duration, objectives, and content of each session within the series.  Instructional plans are necessary because there is often too much information on a particular topic to put into a single learning session, the presentation of the information and the activities used to engage learners needs to be divided into different logically-organized lessons.  For instance, a series of one-hour sessions needed to cover issues related to diarrhea might include: 1) The Causes of Diarrhea, 2) Prevention of Diarrhea, 3) Diarrhea and Dehydration, 4) Treating Diarrhea with Oral Rehydration Salts (ORS), and 5) Case Studies on Causes, Prevention and Treatment of Diarrhea.  Note that in this example, the sequence of training is important.  Participants first learn to identify the causes of diarrhea, then build on that knowledge discover ways and skills to prevent diarrhea.  Likewise, they must first understand the link between diarrhea and dehydration in order to understand why, how and when ORS treatment should be used.  The final session, Case Studies on Causes, Prevention and Treatment of Diarrhea, is used to review and test learner knowledge and skills gained in previous sessions.

*Lesson plans* are detailed outlines of a single training session.  Lesson plans are important because they:
- Help us to logically organize the sequence of information and the activities used to engage learners;
- Provide clear information to trainers regarding equipment and materials required, time needed for the training session, etc.;
- Help trainers to remember everything that should be said and done during a given learning session (when we don't write things down, we are usually not as thorough and some key pieces of information will often be omitted);
- Can help standardize core content of our key messages and the quality of delivery of those messages throughout all communities served by the program;
- Help us to retain institutional knowledge (if a particular staff member leaves the organization, a new staff member will know what was taught in the past and be able to continue teaching the educational sessions from established lesson plans); and
- Make it easy to review, improve and update our methods and messages and to share these improvements among colleagues.

Various formats may be used to develop lesson plans but good lesson plan for adult learning will include careful consideration of each of the Seven Steps of Design of Structured Learning Sessions.  Good lesson plans should always include detailed information regarding:

- The content you want to cover (see discussion below regarding content);
- The methods and activities you will use to engage learners with various learning styles;
- The ABOs by which you will evaluate the extent to which learning has occurred;
- A list of the equipment & materials you will need for each session; and
- The duration of each session or activity used to present the content.

In designing lesson plan content, facilitators should keep in mind several important considerations.

1. *Good practices for facilitating adult learning.*  As previously noted in this Chapter, the design of learning sessions for adults should be developed keeping in mind the:
    - Five key principles of adult learning;
    - Three major learning styles (visual, auditory or kinesthetic);
    - Seven steps of design of structured learning sessions; and
    - Development of achievement-based objectives (ABOs) that describe in observable and verifiable terms what the learners will have done with each content element.
2. *Program objectivities and activities as detailed in the program design and summarized in the program logframe.*
3. *Up-to-date and effective technologies, methodologies and practices.*
4. *The unique vision and mission which characterizes FH and our programs* (as described in Chapter 1 of this manual)*.*

One aspect of the unique vision and mission of FH is its commitment to the practice of "holistic ministry", defined as "Ministry to all needs of people (physical, spiritual, social, mental, and emotional) and to seeking reconciliation in all of a person's relationships -- with God, with other people, with oneself, and with creation."  It is not uncommon for a new staff member to ask, "How do I make a lesson plan holistic?"  Here are a few tips that may be helpful:

1. Begin by reading the HFSA Report and by reviewing the problem tree analysis used by the program design team.  These documents can greatly benefit field staff by helping them to better understand the holistic context and inter-connected aspects of issues they will face during program implementation.  These reports will be especially helpful if HCA was used effectively as part of the HFSA process.
2. It may be helpful to consider what holistic lesson plans are and what they are not (see table below).

**Table 10:  Holistic Lesson Plans**

| Holistic lesson plan development **is not** about… | Holistic lesson plan development **is** about… |
|---|---|
| Inserting an interesting Bible passage or tacking a discourse on Christian faith onto technical learning sessions. | Integrating a variety of scientific, social, philosophical and religious texts.  Quotations, newspaper articles, cultural proverbs, stories, biblical texts and various experiencial activities are collectively employed to help participants analyze and discover for themselves fundamental reality (truth) regarding ideas, beliefs and practices which impact their lives and those of their families, communities and nations.  Holistic lesson plans seek not only to help people better understand the framework of reality, but also to live within it. |
| Imposing our our beliefs on others. | Valuing the capacity of learners for understanding and free will; attempting to influence one another's judgments and choices by rational persuasion (never by coercion); and facilitators and participants learning together. |
| A secular approach to addressing poverty and development. | A distinctly biblical approach concerned with whole people -- that is to say the often interdependent and interrelated physical, social, emotional, spiritual aspects of people; and their relationships with God, other people, and the whole of creation.  It is about emulating the loving concern for the spiritual and physical needs of the whole person (body, mind, spirit), as modeled by Jesus Christ. |

Hold down the CTRL key and click with your mouse on the following link, "Blank Learning Session Plan" for a blank lesson plan format that incorporates the Seven Steps of Design of Learning Sessions.

The detailed Sample Lesson Plan which follows exemplifies use of the above noted format.  It also provides an illustration of how physical, mental and spiritual health can be holistically integrated, in this case, into a lesson plan about hygiene and diarrhea.

## Sample Learning Session Plan

| Part I | | |
|---|---|---|
| **Title Of Training:** | **HYGIENE FOR THE BODY, MIND AND SPIRIT – PREVENTION OF DIARRHEA** | |
| **WHO?** | *Participants:* Twenty mothers of young children from the community of Ajo.  Four of the mothers have had children die from severe diarrhea within the past five years.   Fourteen of the twenty mothers are very concerned about the high incidence of diarrhea among children in Ajo and they want to find ways to prevent their children from getting diarrhea.  Six of the 20 mothers however stated that if children get diarrhea and die from it is because they are weak and that it is their fate to die.  Fourteen of the mothers are Catholics and six are Evangelicals.  (This information is based on a Learning Needs Resource Assessment conducted with the mothers during a previous health training session.) | *Trainers/Facilitators:* |
| **WHY?** | *Purpose of Training:* The immediate purpose of this learning session is to motivate and equip learners to practice good hygiene in their homes.  The ultimate purpose of the training is, "to reduce the incidence of diarrhea, and child mortality caused by diarrhea, in the community of Ajo through improved hygiene practices." | |
| **WHEN?** | *Date: January 15, 2006* | *Time: 2:00 – 4:00 PM* |
| **WHERE?** | *Location: Ajo Community Church* | |
| **WHAT FOR?** | *ABOs:* 1.  Participants will have identified at least 10 hygiene practices that help prevent diarrhea. 2.  Participants will have conducted an observational survey and will have described improvements in hygiene practices needed at the homes they surveyed. 3. Each participant will have a plan for improving at least two hygiene practices in her own home before our next meeting. 4. Participants will have analyzed how "contaminated ideas" (mistaken personal or cultural beliefs) have caused harm within their community. | |
| | Note for Trainers: This lesson is the second lesson of a six part series related to diarrhea.  Because each lesson builds upon the previous lesson, it is important that the lessons be taught in the following sequence: 1) The Causes of Diarrhea, 2) Prevention of Diarrhea, 3) Clean Water, 4) Diarrhea and Dehydration, 5) Treating Diarrhea with ORS, and 6) Case Studies on Causes, Prevention and Treatment of Diarrhea. | |

| Part II: Detail of Content, Methods, and Materials | | | | |
|---|---|---|---|---|
| **DURATION** | **CONTENT (WHAT?)** | **METHODS (HOW?)** | **EXPECTED RESULTS (WHAT FOR?)** | **MATERIALS NEEDED** |
| 5 min | Greetings and introduction of the session Topic | Share with participants the results of the LNRA conducted with them 2 weeks ago and relate the concerns they expressed to today's topic. | | Summary of results from the LNRA. |
| 15 min | Show a picture of a dirty home and compound, as well as a picture of a clean compound, and ask participants to compare both pictures.<br><br>OR<br><br>Use a story: A person goes to visit a mother with a young baby. The mother complains about the baby's severe diarrhea and then begins feeding her child with a bottle. While feeding she drops the bottle, it falls to the floor next to a couple of chickens who are walking around in the house. The mother wipes the bottle with her hand, and continues to feed the child. (Add names and more details to the story as desired.) | A picture or a story combined with discussion and reflection using SHOWD questions:<br><br>S=What do you **S**ee?<br>H=What is **H**appening?<br>O=Does this happen in **O**ur homes?<br>W=**W**hy does this happen?<br>D=**W**hat can we do about it? | | Pictures of a dirty home and compound; and of a clean home and compound.<br><br>OR<br><br>A fully developed version of the story described under Content. |
| 20 min | Divide into groups and have participants discuss how to prevent diarrhea.<br><br>Add to participant responses as necessary (using flip charts to illustrate) and insure that the following ways to prevent diarrhea are covered:<br><br>To prevent diarrhea, you need 1) a clean person, 2) a clean home & 3) clean and properly prepared foods; and 4) clean water.<br><br>*Clean Person*<br>• Wash hands before eating and after using the latrine; using soap and water.<br>• Wash body 2 or 3 times per week.<br>*Clean Home*<br>• Have a latrine and use it.<br>• Have a waste pit and use it.<br>• Use a dish drying rack.<br>• No animals inside the home or kitchen.<br>*Clean and Properly Prepared Food*<br>• Wash vegetables.<br>• Cook vegetables, but not so long that you ruin vitamins.<br>• Cook meat long enough, until no red is left. | 1. Small group brainstorming activity to draw out current learner knowledge and ideas.<br><br>2. Dialogue with learners at the end of the activity to provide additional information as needed. | ABO #1 | Newsprint and marking pens, masking tape.<br><br>Flip charts on Clean Person, Clean Home, Clean and Properly Prepared Food and Clean Water.<br><br>Handout copies of the flip charts to give to mothers. |

| DURATION | CONTENT (WHAT?) | METHODS (HOW?) | EXPECTED RESULTS (WHAT FOR?) | MATERIALS NEEDED |
|---|---|---|---|---|
| | *Clean Water (Inform participants that this topic will be covered in detail the next time we meet together.)*<br>• *From a protected spring.*<br>• *From a protected well 1 meter below water level, 100 meters from latrine.*<br>• *From rain run-off in a rain catchment system.*<br>• *Boiled water*<br>• *Chemically purified water*<br>• *Three pot system*<br>• *Sand filtered*<br>• *Sun disinfection* | | | |
| 40 min | Based on the list of ideas for preventing diarrhea discussed above, ask participants to break into groups of 4 and do a brief walking/observational survey of homes around the Ajo church. Each of the 4 groups will walk in a different direction (north, south, etc.). Ask participants to look for latrines, dish drying racks, waste pits, clean compounds and homes and personal cleanliness; also the source and characteristics of water they see at homes. They should note both good and poor hygiene practices they observe. (Allow 25 min for observation)<br><br>Come back together and ask participants to share what they have seen. Capture these observations on two lists: good practices & poor practices.<br><br>Ask participants to describe improvements in hygiene practices they would recommend based on their observations. Then ask participants if they believe people would be willing to adopt their recommendations. If not, discuss possible barriers to adopting the recommendations. | | ABO #2 | Newsprint and marking pens, masking tape, pens and note pads for mothers who wish to use them. |
| 15 min | Ask participants to develop a brief plan for improving at least two hygiene practices in her home before our next meeting. Briefly share this plan with the group. Give participants about 5 minutes consider their plan, then have them present as specified in the methodology section. | Instructions for sharing the results:<br>The first participant to share will light a wooden match and share details of her plan until the match burns out. Each mother, in turn, does this until all have shared their hopes for their plans. | ABO #3 | 1 box of wooden matches |

| Part II: Detail of Content, Methods, and Materials | | | | |
|---|---|---|---|---|
| DURA TION | CONTENT (WHAT?) | METHODS (HOW?) | EXPECTED RESULTS (WHAT FOR?) | MATERIALS NEEDED |
| 20 min | **Introduction to Holistic Hygiene**<br><br>Use a Story: *The Tragedy of Abena and Ada*<br>A girl in Africa, named Abena, learned from her mother that children got diarrhea because an envious or angry neighbor would contact a witchdoctor and send an invisible snake into the stomach of the child. Abena grew up believing this story. When Abena became a woman and had her own children, one of her children became very sick with diarrhea. A doctor came and told Abena that diarrhea was caused by germs and that it could be both prevented. He also said that he treat the child to help him get well. Abena refused to believe the doctor, she was convinced that her neighbor Ada and witchcraft were to blame for the diarrhea. Without treatment, the child died. Abena became very angry and sought revenge on Ada (even though Ada swore she had done nothing wrong). For revenge, Abena poisoned and killed Ada's oxen. This was a great loss to Ada and her family. Although Abena was convinced that Ada had used witchcraft to kill her son, the truth is that Ada was innocent; she was a good person and would never have tried to harm Abena. Some years later Abena became sick. Just before she died she cursed God for giving her such a sad and tragic life.<br><br>*Use SHOWD questions to stimulate discussion.*<br><br>*Background Notes to Discussion Facilitators:*<br>*Sometimes things appear to be clean and pure when they are not. Water for instance may appear to be clean, but may be contaminated with very small organisms we cannot see. Sometimes these cause a person to become mildly sick and other times may cause a person to become seriously sick and die.*<br><br>*Just as our bodies can become damaged by contaminated water, if we are not careful our minds and spirits can also become damaged by contaminated ideas. Contaminated ideas are words or ideas that sound good, and may be believed by many people, but are contaminated by untruths. Contaminated ideas can affect our whole thinking. This is what happened in the story with Abena, she believed strongly in something that was not true and as a result: her son died (physical harm), Abena was filled with grief (mental harm), Abena was filled with anger against God (spiritual harm), her* | Questions, discussion and reflection using SHOWD questions:<br><br>S=What do you **S**ee?<br>H=What is **H**appening?<br>O=Does this happen in **O**ur homes (community)?<br>W=**W**hy does this happen?<br>D=What can we **D**o about it?<br><br>Additional probe questions may be used if needed to stimulate thought & discussion, here are examples of possible probe questions:<br><br>- What was the real cause of the problem in this story?<br>- Was there a link between Abena's beliefs and her actions?<br>- Did Abena have mistaken beliefs? If so, what were they?<br>- What were the results of her actions?<br>- Who was injured and how were they injured?<br>- Do you agree with Abena that God was to blame for her sad and tragic life?<br>- Can you think of any examples of how mistaken ideas or beliefs have caused harm to the health of yourself, your family or your community?<br>- How can we guard our minds against ideas that are contaminated by untruth?<br>- How are physical, mental and spiritual contamination similar? | ABO #4 | |

| Part II: Detail of Content, Methods, and Materials | | | | |
|---|---|---|---|---|
| DURA TION | CONTENT (WHAT?) | METHODS (HOW?) | EXPECTED RESULTS (WHAT FOR?) | MATERIALS NEEDED |
| | *relationship with Ada was destroyed (social harm), and Ada and her family suffered from the loss of the oxen (economic & physical harm). Contaminated water can make us a little sick or cause death; wrong thinking can produce the same results. As we saw in the story of Abena and Ada, wrong thinking can affect physical health, social health, mental health and our spiritual health and even economic health of a family or community; it can make us a little sick, or it can even result in death as happened in the story of Abena and Ada.*<br><br>*The Bible in Romans 2:12 tells us, "Do not conform any longer to the pattern of this world, but **be transformed by the renewing of your mind**. Then you will be able to **test and approve** what God's will is—**his good, pleasing and perfect will**." This verse is a reminder to us to guard our minds from contaminated ideas around us in this world and use our minds to test and approve God's good, pleasing and perfect will. It would also seem to indicate that God's will is good, pleasing and perfect – inconsistent with the sad and tragic events described in the story of Abena and Ada. (See also 1 John 4:1)* | How are they different? How are each related to health in your community? | | |
| 5 min | Close of Session Reminders<br>• Remind participants of the changes in hygiene practices that you are going to make before our next meeting, at our next meeting we will want to hear about the changes you have made and what your families think about them.<br>• Remind participants of the topic and time for the next meeting. Topic: "Hygiene for the Body, Mind and Spirit – Clean Water". | | | |
| Total Durati on 2 Hours | *Adapted from lesson plan by Medical Ambassadors International, Modesto CA.* | | | |

## Guidelines for Developing Key Messages

*Key messages* are often developed and provided within training sessions in response to problems identified during the community appraisal process and LNRAs, in order to influence change in values, attitudes and/or behaviors. In food security programs, key messages are typically those messages that must be understood and adopted by learners if the program is to achieve the desired impact. The key messages therefore need to clearly and concisely describe important aspects of the desired change. Within a given training session, one or more key messages may be introduced, depending on the complexity of the topic and/or the interest of the participants.

The following is an example of a poorly developed key message. See if you can identify the problems with this message, and suggest improvements to it, before you go on to read our suggestions for improvement.

*"It is important to use good hygiene at all times."*

One problem with this message is that it does not say WHO should practice good hygiene. Additionally, the message does not describe WHAT you have to do to practice good hygiene, WHEN you need to practice those behaviors, or WHY it is important. The message is "too big" and needs to be broken down into separate behaviors. We can improve this message as follows:

*"In order to prevent diarrhea and worms, everyone in the family should wash their hands with soap and water after going to the latrine or handling dirty diapers, and before preparing or eating foods."*

Note that the message, as revised above, describes <u>WHO (</u>everyone in the family), <u>WHAT</u> (wash hands with soap and water), <u>WHEN (</u>after going to the latrine or handling dirty diapers), and before preparing or eating foods, and <u>WHY</u> (to prevent diarrhea and worms).

It is important to note that key messages are not intended to be outlines for lectures to be "delivered" to learners, but rather they are intended to provide a framework for dialogue with learners about knowledge, values, attitudes, and behavior changes that can positively impact the lives of the learners and their families. The role of the trainer in this environment is to facilitate a learning environment which will ultimately lead to positive changes in behaviors.

## <u>Adult Training Methodologies</u>

*Adult training methodologies* are tools used by facilitators to stimulate participants and involve them in active learning. Our training methodologies are in essence the vehicles which carry participants toward the learning goals. Readers may be already familiar with a variety of adult training methodologies such as: icebreakers, small group discussions, role playing, brainstorming, buzz groups, lectures and panel discussions.

As facilitators, when we embrace active learning, we often find ourselves in need of new tools and methodologies that develop more interactive relationships with participants, especially methodologies that bring real-world application into the learning environment.

## <u>Linked Tools</u>

Presented below are links to short documents on several methodologies that facilitators may find helpful in this context. Hold down the <crtl> button and right click with mouse on the link below to access the following training methodology tools.

Cultural Proverbs – Proverbs are short sayings which communicate beliefs and values held by a specific culture. Cultural proverbs either provide great bridges toward God's truth or reveal barriers that stand in the way of people understanding or accepting God's truth.

Development Related Bible Study Technical – An introduction to using biblical passages to communicate or reinforce key development messages. [PowerPoint]

Development Related Bible Study Spiritual – An introduction to using biblical passages to communicate biblical truth related to worldview, beliefs, values and attitudes which influence the development context. [PowerPoint]

Guidelines for Writing and Telling Stories – Concise guidelines for facilitators on writing and telling stories.

Songs and Poems  – A brief introduction to using songs and poems for training and guidelines for their development.

Stories – Using parables, open-ended and closed-ended stories in learning sessions.

Testimonies – Using testimonies effectively in learning sessions.

Using Hand Puppets – Tips for using and making hand puppets.

Redemptive Agriculture Curriculum – Redemptive agriculture focuses on how farmers can create a deeper relationship with God through caring for the land, the crops, the animals, and the relationships with which they have been entrusted.  Technically, it is about how farmers can improve their production in cropping and animal husbandry practices through the transformation of their minds into a redemptive model in which farmers are reconciled to God and to creation.

## Linked Training Resources on Adult Learning – Methods and Messages

Training Methodologies and Principles of Adult Learning (AED/LINKAGES) – *Training Methodologies and Principles of Adult Learning, Application for Training in Infant and Child Nutrition and Related Topics*, AED/Linkages (May 2005). http://www.linkagesproject.org/media/publications/Training%20Modules/TOT-Adult-Learning.pdf

NonFormal Education Manual (Peace Corps) – Non-Formal Education (NFE) Manual, Peace Corps, Information Collection and Exchange, Publication Number M0042 (2004). http://www.peacecorps.gov/library/pdf/m0042_nfemanual1.pdf

Adult Learning (California WIC) – *California WIC Training Manual* (June 2002). http://www.wicworks.ca.gov/resources/trainManual/Modules/Mod19.pdf

## Other Resources

Atherton, J.S. (2005) *Learning and Teaching:*  Experiential Learning   [On-line] UK: http://www.learningandteaching.info/learning/experience.htm

Knowles, Malcolm S. (1970). *The Modern Practice of Adult Education: Andragogy Versus Pedagogy.* New York Association Press.

Knowles, Malcom S. (1980).  *The Modern Practice of Adult Education: From Pedagogy to Andragogy (Rev. ed).*  Englewood Cliffs: Cambridge Adult Education.

Knowles, Malcom S. (1989).  *The Making of an Adult Educator*

Vella, Jane (2002), *Learning to Listen, Learning to Teach: The Power of Dialogue in Educating Adults.* Second Edition. Published by Jossey-Bass (San Francisco, CA)

# 4.2 POSITIVE DEVIANCE

## Description

Positive deviance (PD) is a development approach that is based on the premise that solutions to community problems already exist within the community. The PD approach thus differs from traditional "needs-based" or problem-solving approaches in that it does not focus primarily on identification of needs and the external inputs necessary to meet those needs or solve problems. Instead it seeks to identify and optimize existing resources and solutions within the community to solve community problems.

In every community there are certain individuals (the "Positive Deviants") whose special practices/strategies/behaviors enable them to find better solutions to prevalent community problems than their neighbors who have access to the same resources. Through PD Inquiry, program staff and their community partners identify the unique practices of some community members that set them apart from others within the same community and allow them to cope more successfully with the same resource base. Based on identification of these successful practices, program staff and their community partners develop strategies to enable all members of the community not only to learn about these practices, but also to act upon them.

PD is an unusually respectful development approach. The focus is no longer on community weaknesses, inherent in the questions; "What is wrong here?" and "What do you need?" PD approaches ask, "What are your resources? What is going right here? How can you utilize your resources to solve your problems?" The very core of PD is the belief in the wisdom and untapped resources found in the community. This aligns very well with FH's Vision of a Community to facilitate churches, leaders, and families to solve their problems and meet needs.

## Introduction

What are some of the general questions we ask ourselves, when we enter a new community to do development work? Often, we focus on community weaknesses by asking ourselves questions like, "What are people doing wrong in this community? What is missing? What do the people need? How can we help them?"

In education, or as we work with farmers or mothers, we usually want to work with our target group. Those who have the most problems, or are in the most need. We refer to them as beneficiaries, those who need and receive benefits from the program. A "deviance" is a difference, a departure or deviation from the norm, from what is common. It is often negative, connoting unacceptable behavior. Someone who is a deviant is someone who is very different from others in a very bad way. PD is a difference or deviation from the norm resulting in a positive outcome. A positive deviant is different from most beneficiaries, as they would be in less need. They are usually the ones who, despite being as poor as others in the community, have children who are growing well, have a good harvest, don't do a particular harmful cultural practice, etc.

In communities throughout the world, there are a few "deviant" individuals whose uncommon behaviors or practices enable them to do better than their neighbors, or find better solutions to common problems, than those who are living in the community and have just as many resources. We call these people "*positive deviants*." Their behavior

has led to a new way of looking at and doing development work called "positive deviance." Identifying people who are positive deviants can show us hidden resources already present in a community. With that information, we can discover solutions that are cost-effective, and sustainable, as well as owned and managed by the people.

"Some people do some things better than others." When we first consider it, there does not seem to be anything particularly important or profound in that statement. In fact, there is something exciting and revolutionary when we look at traditional community development theory. Traditional development theory says we need to first address the inter-related factors causing a problem before we can do very much about it. So for malnutrition, we need to help people produce more food, sell more food, have better access to markets, and have access to clean water and latrines before the situation will change. For low agricultural productivity, we need to help farmers learn advanced production techniques, have better access to agricultural inputs and credit, and better access to markets to sell their crops. Positive deviants, however, provide proof that it is possible to find solutions now to complex problems before we address the inter-related factors underlying a particular problem.

The millions of children in the world today who are severely malnourished do not have the luxury of waiting until the issues of poverty, lack of access to adequate sources of water and sanitation, food distribution patterns, etc., can be addressed. They are at risk today of never achieving their physical and intellectual potential and in some cases of not surviving. At the same time, the presence of a few very poor families in their communities with well nourished children (positive deviants) proves it is indeed possible today -- despite poor production, poverty, and inadequate water and sanitation -- to have a well nourished child. PD individuals have the same resource base as their non-positive deviant neighbors, thus whatever resources they are using to be successful are by definition accessible to their neighbors.

When we use a PD approach in our work, we first identify the special beliefs and practices of people who are positive deviants (or their caregivers). Then we can help others in the community to discover those special beliefs and practices that have proven to be successful in their community. These are things they can put into action today, they do not have to wait to have more money or better water or more food to work with. PD is about helping people discover what is already being done or used in their community with positive results.

## <u>History and Results Using PD Approach</u>

Many organizations still do not know very much about PD yet during the past ten years organizations using PD approaches, especially in health, have achieved significant impact results.

PD can be used on a larger scale than many traditional development programs. When using the PD approach in Vietnam, more than 250 communities brought an estimated 50,000 malnourished children out of malnutrition, from 1991-1999. The younger siblings of these children, many of whom were not yet born at the time the nutrition program was implemented, are staying better nourished.
- SCF's program in Vietnam decreased the proportion of children who were severely malnourished by 74% (from 23% to only 6%, p<0.001).

- The proportion of children who had a normal weight-for-age increased from 42% to 56%.
- The overall weight-for-age of the 1,893 children 0-3 years of age who were in the program increased by 0.36 standard deviations.
- Most importantly, the weight-for-age of children, born during the second year of the project after the Hearth workshops had ceased, was the same as or better than counterparts born during the first year. Many feeding programs are able to improve childhood malnutrition, but unfortunately, the effects are usually temporary. Children gain weight while in the feeding program, but then lose it again once they are not being fed. With PD, it's different. Changes are sustained because they are based on local solutions that individuals in the community have been able to sustain.

In Vietnam, the PD study found mothers (or caregivers) of the poor children who were well nourished did several key things differently from other mothers. They would go out to the rice paddies and collect tiny shrimps and crabs the size of one joint of one finger and add these to the child's diet. They would also add the greens from sweet potato tops. Although these things were readily available and free for the taking, most people felt it was not appropriate, or even dangerous, to give these foods to a young child. Along with the addition of the shrimps, crabs, and greens, there were certain other positive deviant practices these poor mothers did, like feeding the children more often during the day, and providing them with a higher quality of child care. Local Health Volunteers (health promoters) noted that in contrast to the poor positive deviants, there were a number of children from relatively well off (rich) families in the commune that suffered from serious malnutrition. Through the PD study, the villagers discovered for themselves that good nutrition is not necessarily correlated with wealth or income.

PD has been used to change other practices beside nutritional practices. For example, in Egypt, an organization used PD to change the proportion of women who underwent female genital mutilation (or female circumcision). Over 95% of all women in Egypt are circumcised. This painful and potentially dangerous procedure is practiced in Cairo as well as in remote villages throughout the country. The practice is tightly interwoven in the fabric of Egyptian life and as such is strongly resistant to change. How does one succeed in changing a tradition which 95% of the people practice? But PD turned the question around. With PD, you ask, "How has it been possible for 5% of women who are not circumcised to escape the social and religious pressures to become circumcised?" Although that project is only two years old, the PD approach has already resulted in more women deciding to not undergo female circumcision.

Other examples of how PD is being used include:
- The Saving Newborn Lives Initiative, led by Save The Children US, using PD to improve Maternal and Newborn Care in Pakistan.
- Student Retention in Argentina – With support from the World Bank, the government of Argentina is using PD to address the high rates of student drop out in one region. By using PD, schools with high drop out rates have been able to identify specific strategies that neighboring schools are using to decrease school drop out.
- Preventing Girl Trafficking in Indonesia -- In May of 2003 Save the Children and a local Indonesian non-governmental organization (LPKP) met with a consultant to explore how PD could be used to build a community-based movement to

protect girls from being trafficked into the 'special entertainment industry' (sex industry).

## Positive Deviance and Agriculture

At the time of writing of this manual it is unclear whether or not PD can be used effectively in agricultural programs.  Several years ago, in Bolivia, FH sought to experiment with PD in an agriculture program to determine if it could be applied to successfully to agriculture as well as to health.  Unfortunately, that initial trial was unsuccessful.  Since that time, we have discovered there is a widely held axiom of neo-classical agricultural economics which states "in traditional agricultural areas the model of economic equilibrium indicates that farm management research [which studies the more successful farmers and then advises other farmers to follow suit] will not provide much new information of use to other farmers, because all the villagers already know well the traditional technology and the local agricultural resources.  Hence, there is very little new knowledge to be transferred from one farm to another...leading to little increase in agricultural production" (Stevens and Jabara, Agricultural Development Principles, 1988).  At face value, this axiom suggests it is not even worth the effort to look for positive deviant farmers in that they do not exist.  A survey of many of our international NGO colleagues also indicates that in agricultural production the PD approach has not been used, or at least use and results have not been documented.

In short, while it would seem that many of the principles and methods of PD should translate very well to agricultural development programs; to date we are unaware of any successful attempts to do so.  This may be an indication of lack of suitability of the methodology with agricultural programs or the result of simply not yet having found the right applications of the methodology to agricultural development programs.  For the moment at least, "the jury is still out" regarding this possibility.

Readers interested in learning more about PD/Hearth methodologies are encouraged to explore the excellent resources linked below.

## Linked Training Resources on Adult Learning – Methods and Messages

Positive Deviance Field Guide (SAVE) – *Designing a Community-Based Nutrition Program Using the Hearth Model and the Positive Deviance Approach – A Field Guide.* (Sternin, Sternin and Marsh – 1998, copyright Save the Children UK, reproduced by permission).  This manual is a step-by-step look at what the PD Approach involves in the field setting. It is specific to addressing childhood malnutrition and the use of the Hearth Model, with examples from experiences in Vietnam, Nepal and Mozambique. The appendices cover regional profiles compiled by Marian Zeitlin in 1996, as well as sample questions for interviews and training curriculum.
http://www.positivedeviance.org/pdf/fieldguide.pdf

A Resource Guide for Sustainably Rehabilitating Malnourished Children (CORE) – Positive Deviance/Hearth. *A Resource Guide for Sustainably Rehabilitating Malnourished Children* (The CORE group, 2003).  This manual was published in

February 2003 by the Child Survival Collaborations and Resources Group (the CORE Group). The manual begins with an overview of PD and the Hearth Approach. It explains in detail how to identify at-risk children, conduct a PD Inquiry to identify positive practices, conduct Hearth sessions, and set up a M&E system. Throughout the manual are exercises, tips and lessons learned by non-governmental organizations that are successfully implementing PD/Hearth around the world.
http://www.positivedeviance.org/pdf/hearth_book.pdf

The Positive Deviance Initiative Webpage @ http://www.positivedeviance.org/about.html – The Positive Deviance Initiative (PDI) was formed in 2001.  Located at Tufts University School of Nutrition Science and Policy, PDI objectives are to document and share information on current global PD projects, to explore new PD applications, and to expand the cadre of PD practitioners and trainers.  The training manuals noted above, and a number of excellent short presentations on PD methodology, are available on the PDI webpage.


## __Acknowledgement__


A significant portion of this introduction to PD was adapted from *Positive Deviance: A New Paradigm For Addressing Today's Problems Today*, a Save the Children Foundation Document by Eric Swedberg, MPH.

# 4.3 USE OF CARE GROUPS

## Description

The Care Group model grew out of a World Relief child survival project in Mozambique in 1995, the brainchild of Dr. Pieter Ernst, and was adapted by FHI in two districts of Mozambique's central Sofala Province by 1998. Dr. Ernst recognized that the World Relief's 19 project health promoters could not adequately reach the reach the target population of 107,000 with the behavior change messages promoted by the project and sought a means to extend the project's coverage through the creation of a sustainable and cost-efficient network of highly motivated volunteers. Recognizing the potential threats of burnout and attrition often associated with volunteer based programs, Dr. Ernst and other senior project staff resolved to design a system that would provide support and encouragement to volunteers without making their responsibilities excessively burdensome. The result of their effort, the care group model, creates a vast and sustainable network of community volunteers.

At the center of the Care Group structure are volunteer mothers responsible for 10 to 15 households in their respective village. These women are the conduit through which FHI professionals channel their teaching, and through whom information and monitoring are returned to the trained health professionals on a regular basis. At a glance, this pyramid-style structure looks like this:

- Village households with children 5 years old and younger are identified and grouped into blocs of 10.
- One volunteer mother is selected – often elected – to be the lead mother who will commit to visiting her assigned households once every two weeks. These visits will include detailed instruction on the lesson that the volunteer mother received earlier from a paid health promoter on staff with FH.
- Every two weeks, a bloc's volunteer mother gathers with nine other volunteer mothers – the Care Group – for training on a specified health topic. The volume of each biweekly lesson is kept to a simple and understandable length, so that beneficiary mothers – those who will receive visits from their volunteer mother – are not overwhelmed with too much information.
  - A lesson on prevention of malaria, for instance, might begin with basics on the ways malaria is spread and what its symptoms are. Two weeks later, volunteer mothers who have since met with their 10 households return to their Care Group for Lesson 2 on malaria, perhaps learning how to teach preventive measures. A third training might supply each volunteer mother with new picture books and flip charts for her use in households – especially effective in communities with low literacy rates – and might examine the traditional beliefs that have previously hindered effective prevention.
- Topics covered during Care Group meetings include the following emphases as part of FH's current program (2002-2006): breastfeeding; supplementary feeding; promotion of vitamin A food sources such as sweet potato and other vegetables; nutrition during pregnancy; immunization; sanitation and hygiene; managing diarrhea; acute respiratory infection; malaria; reproductive health and family planning; and HIV/AIDS and other sexually transmitted diseases.
- At the upper levels of the Care Group's pyramid structure are the paid staff (coordinators) who organize, gather and disseminate health care information to

the volunteer mothers.  Each coordinator oversees some 10 health promoters, paid staff that live in their respective districts.  Each of those promoters trains eight to 10 Care Groups, the gatherings of 10 volunteer mothers selected from their villages.

- A single promoter, then, educates and serves 80 to 100 volunteer mothers, who in turn collectively reach up to 1,000 more beneficiary mothers and their households.

Since 1998, FHI has adopted the "Care Group" model in its child survival programs throughout Mozambique; based on the premise that neighborhood mothers know their communities best and are able to reach far more households than a single health professional.  Care Groups are indeed yielding marked improvement in child survival and health.  Child mortality has plummeted 62 percent since 1999 in the two provinces of Mozambique where World Relief and FHI employ a Care Group model in their child survival programs.  Healthy behaviors such as breastfeeding and vitamin A distribution are up, and the prevalence of diarrhea and malnutrition are showing steady declines.  Additionally, in FHI Mozambique's Title II-funded project that employs the Care Group model, malnutrition already has declined from 50 percent to 30.3 percent, and severe malnutrition of children 5 and younger has dropped from 25 percent to 13 percent.  Other positive results in practice and knowledge include:

- Exclusive breastfeeding among children 4 months and younger, from 46 percent to 61 percent;
- Children 6-10 months receiving at least three meals a day, from 24 to 58 percent;
- Children 6-10 months receiving added oil to their weaning food, 29 percent to 73 percent;
- Children under 2 years receiving daily sources of vitamin A (such as green leafy vegetables), from 59 to 94 percent;
- Mothers who know where to find foods rich in vitamin A, from 4 to 86 percent;
- De-worming of children under 2, from negligible levels to 72 percent;
- Immunizations for diphtheria-whooping cough-tetanus, from 49 to 74 percent; and
- Reductions in diarrhea rates, from 44 to 29 percent.

Most important to long-term health improvements, 90 percent of Care Groups continue meeting a year or more after their professional trainer has left the community.

The Care Group model has been adapted and used in a wide range of cultures and countries including Cambodia, Malawi, Rwanda, and Guatemala.  Major benefits of the Care Group methodology include multiplication of efforts of project staff, extending and intensifying project coverage, encouraging and motivating volunteers, intensifying impact within communities, and generating sustainable systems of locally motivated volunteers that continue beyond the life of external projects and programs.

World Relief has prepared an excellent manual detailing the care group methodology in *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators*.  This manual may be viewed in its entirety by clicking on the following link:

[World Relief Care Group Guide]

# 4.4 TRIALS OF IMPROVED PRACTICES (TIPS)

## Acknowledgement

Portions of these notes are taken from *Designing by Dialogue: A program Planner's Guide to Consultative Research for Improving Young Child Feeding.* June 1997. Kate Dickin and Marcia Griffiths, The Manoff Group, and Ellen Piwoz, SARA/AED.

## Description

Trials of Improved Practices (TIPs) is a research tool developed to help program planners select and "pretest" the actual practices that the program will promote. TIPs are actual trials, conducted by a small number of families, of proposed improved behaviors. Families are asked to select from a menu of possible improved behaviors that are most relevant to their specific family situation, and then try out the behaviors they have selected for the trial period (often a week or two). At the end of the period, the subject of the trial is interviewed to learn about their trial experience. Interviewers ask what they did and why; what they did not do and why; what was easy and hard and why; what benefits or costs were associated with the new practices; what if anything others advised during the trial period; their intention to continue or discontinue the practices; and other similar information. TIPs methodology is widely used in nutrition and other areas of public health.

## Introduction

Developing strategies to change behavior requires knowledge of the local problems affecting people, and an understanding of which practices are acceptable and feasible for families in a given project area. Ideally, all practices should be tested in people's homes before they are recommended. One way to do this in a systematic way is by using TIPs.

TIPs has been used in health programs in Bolivia, Ecuador, Honduras, and many other countries in Asia and Africa. The advantage of TIPs, particularly for refining practice recommendations, is that mothers, other primary caregivers, or farmers are:
- Given a choice of recommendations to act on;
- Questioned about their reasons for the choice they made; and
- Are then followed up to see what actually happened. Did they try the new practice, and if so, how did they feel about it? Did they modify it? Or if they did not try it, why not?

In this way the proposed recommendations are tested in a real environment, and information is gathered on their acceptability. This information helps program planners to set priorities among the large number of practices and messages which projects often want to promote. It is similar to Barrier Analysis in that way. You promote what is most effective and most likely to be accepted. The decision about what is most likely to be accepted is not based on a discussion by staff members sitting around a table, but on local research.

Keep in mind that TIPs is a research activity. It is not something you would do every time you prepare an educational session, but you would do it at one point-in-time before

you develop your educational materials.  It is not a methodology for implementing educational and counseling sessions, but a methodology for improving the education and counseling we do.

Through TIPs, project staff can discover:
- The relative ease or difficulty of communicating various recommended practices for the person who is being educated/counseled;
- Modifications that make the recommendations more acceptable to the person;
- Unanticipated resistance points that limit behavior change;
- Ways in which recommendations are undermined by practices such as dilution, replacement, or other's resistance to the new behavior (e.g., neighbors making fun of your new farming practices; children's resistance to new foods); and
- The approximate proportion of program participants (i.e., beneficiaries) who are and are not able to modify their practices and improve outcomes (e.g., improved yields or nutrition) without additional resources.

TIPs tests the feasibility of asking people to carry out the behaviors (practices) you are promoting.  This is different from pre-testing educational materials and messages, which occurs much later.

TIPs has only been used extensively in health at this point, but it is should be entirely applicable to usage in agriculture, water and sanitation, and other disciplines where education and behavior change is being promoted.

Let's look at some results from TIPs studies in health to give you an idea of the type of findings that come out of this process.  These are some of the things that project staff discovered when they had mothers try out different nutritional practices:

Highlights of Insights from TIPs:
- Swaziland—Recommendations to enrich soft porridge by adding ingredients such as milk powder were popular in the trials, but the use of sour porridge was not accepted because of strong beliefs it would cause heartburn.
- The Gambia—Although many mothers agreed to add groundnut paste to children's porridge, actual trial and adoption were much lower due to the poor availability and high cost of groundnuts at the time of the TIPs.
- Tanzania—Mothers gave water to breastfed children under six months to prevent constipation, but they were willing to try exclusive breastfeeding and were pleased with this new practice.
- Nigeria—Mothers thought the preparation of soy flour was a long and tedious process.  They were excited to learn a simple method because they felt that soy beans were easily available and good for their children.
- Indonesia—Mothers were not willing to add drops of oil from a bottle to their children's rice porridge.  They modified the preparation so in one place the rice porridge was cooked with the oil and in another a fried food (tahu) was mashed into the rice porridge.

# Objectives, Steps, Phases & Tasks

There are two major TIPs objectives:
1. To test beneficiaries' responses to recommendations for improving practices related to successful project outcomes (e.g., infant and child feeding or use of improved agricultural practices) in order to determine which practices are the most feasible and acceptable; and
2. To investigate the constraints on beneficiaries' willingness to change their daily patterns and their motivations for trying and sustaining new practices.  TIPs shares this objective with Barrier Analysis, which is also used to investigate constraints.

TIPs involve the following steps:
1. Training field personnel in the methodology;
2. Recruiting participants for the trials;
3. Conducting an initial visit to gather background information and conduct an assessment of the area to be researched (e.g., dietary or farming practices);
4. Debriefing to analyze the gathered information, and counseling preparation;
5. Counseling visit to present options, get reactions, and negotiate trial practices;
6. Debriefing to discuss reactions to recommendations and options selected;
7. Follow-up visit to learn about the implementation and reactions to the new practices that beneficiaries agreed to carry out; and
8. Analysis, summary, and application of results.

Three phases to TIPs:
1. Preparation;
2. Implementation; and
3. Analysis.

## Phase I:  Preparation Tasks

**Table 11:  Preparation Tasks**

| TASK | DETAILS |
|---|---|
| Draft a counseling guide on behavior change recommendations. | • List common problems (e.g., feeding or farming practices) by group (e.g., age group of children).<br>• For each problem (and group) list several realistic recommendations for improving practices (e.g., dietary intake).<br>• Develop the counseling guide by completing TIPs Worksheets #1 and #2. |
| Design the research protocol. | • Determine number and procedures for each household visit. |
| Develop question guides and recording forms. | • Specify topics that require additional questioning.<br>• Draft assessment forms.<br>• Draft recording forms.<br>• For health, experienced nutritionist drafts dietary analysis forms. |
| Revise the research plan. | • Write out a sampling protocol (how many respondents, criteria).<br>• Recruit participants. |
| Draft a field plan. | • Schedule the fieldwork.<br>• Assign responsibilities. |
| Train the field team and pretest the counseling guides and forms. | Topics:<br>• Objectives of TIPs.<br>• TIPs methods and forms.<br>• Role plays and pretesting initial analysis in the field |

## Phase II:  Implementation Tasks

**Table 12:  Implementation Tasks**

| TASK | DETAILS |
|---|---|
| Recruit households. | • Identify households for TIPs.<br>• Obtain consent. |
| Conduct the initial visits. | • Conduct interviews, observations, and assessment in selected households.<br>• Schedule counseling visit. |
| Analyze initial data and plan specific recommendations. | • Review results of initial visit.<br>• Identify problems (e.g., feeding problems) and plan recommendations to suggest in each household.<br>• Revise counseling guide as needed. |
| Conduct the counseling visits. | • Discuss specific recommendations and negotiate with the person to try a new practice.<br>• Schedule a follow-up visit. |
| Summarize the response to counseling. | • Preliminary analysis:  What recommendations are people willing/not willing to try and why?<br>• Document motivations and constraints . |
| Conduct the follow-up visits. | • Repeat the assessment (e.g., dietary assessment).<br>• Find out how people followed the suggested practices, why/why not, how they modified the advice and why, and their positive and negative reactions.<br>• Review and summarize information. |

## Phase III:  Analysis Tasks

**Table 13:  Analysis Tasks**

| TASK | DETAILS |
|---|---|
| Tabulate results of the trials. Do initial analysis in the field. Sort and summarize after the TIPs are completed . | • For each recommendation: tabulate the number who agreed to it, number who tried it, number who will continue/were successful.<br>• Note key constraints and motivations. |
| Revise the counseling guide (e.g., child feeding recommendations). | • Revise the guide to include most appropriate/successful recommendations, amended according to the informant's suggestions.<br>• Focus on the most common problems. |
| Write a report on the findings. | Include:<br>• Summary.<br>• Recommendations for programming.<br>• Remaining questions/ recommendations for further research. |

For more on the TIPs methodology, see resources below.

## TIPS Resources

Trials of Improved Practices TIPS  –  *Trials of Improved Practices (TIPs)* by Marcia Griffiths, the Manoff Group (in MS Word, 161 KB).  A step-by-step guide to using TIPs. http://www.foodaid.org/worddocs/nutrition/NutritionWorks/TIPS.doc

TIPS Summary Manoff Group –  A guide to TIPs methodology (draft) by the Manoff Group (2005) is available online in PDF format at http://www.manoffgroup.com/Documents/summarytips.pdf.

*Behavior Change - Tools and Approaches – Trials of Improved Practices (TIP*S), Change Project.  A good brief summary of TIPs Methodology and links to additional resources and references. http://www.changeproject.org/tools/xchangetools/tx_tips.htm

# 4.5 BARRIER ANALYSIS

## Description

*Barrier Analysis* is a rapid assessment tool used in community health and other community development projects. This analysis tool is used to identify behavioral determinants connected with a particular behavior so more effective behavior change communication messages can be developed. Behavioral determinant is a reason why someone does or does not do something.

Barrier Analysis is conducted by asking participants a series of questions to identify eight potential determinants (most of which are "barriers") which can block people from taking action to improve their or their children's lives (e.g., exclusive breastfeeding to improve a child's health). Questions are also used to identify positive attributes of a behavior that can be used to "sell" a behavior during health promotion or other educational efforts.

One might ask, why is barrier analysis needed? Can't we get the same information from our HFSA or through the KPC study? Let's say you find out, through qualitative methods, that diarrhea is a problem in most of your project communities, and some mothers know how to make oral rehydration serum (ORS) and others do not. You have not quantified the problem yet. Based upon focus groups and key informant interviews with health workers and others in the community, you suspect it is a problem. Since there are so few people who are in your focus groups, and you do not select the participants randomly, you cannot be sure if you are getting a true picture of what is happening. But at least you know what to look for and measure, and what terms to use when asking about it. At that point, you conduct a KPC survey and you've determined:

- 50% of children had diarrhea in the past two weeks;
- 5% of mothers of children purified their water, almost all by boiling water; and
- 80% of mothers say they know how to purify water using bleach, but only 5% of them are using bleach to purify their water.

From this initial survey, you are unable to answer why they are not using bleach for purification. The KPC survey will not answer why and the qualitative HFSA has already been conducted. While you may have some "pet theories," you need documented results.

You may have seen the community stores selling bleach, so can be sure that local people have access to bleach. From this observation, you may be tempted to begin to promote the use of bleach and water purification. But until you understand why they have not adopted the use of bleach for purification, simply telling people continuously that they should chlorinate their water will most likely fail to bring about change. People often have very good reasons for doing the things they do and we need to understand the situation from their viewpoint before we begin to promote specific practices or messages, such as the use of chlorine. Let's briefly consider a few of the reasons, or barriers, which might prevent people from adopting the use of chlorine for water purification.

## 1. Perceived Susceptibility

One of the important determinants is whether a person believes they can get the disease or that the problem could happen or not happen to him/her. If people think they cannot

get a particular disease, or have a particular problem, they often will not take action to prevent it.  In the case above, people may not believe that their family is susceptible to diarrhea, may see it as a problem for some of their neighbors, but not for their family.

## 2.  Perceived Severity

Whether or not the person believes the problem or disease is very serious is another determinant.  If people do not think a problem or disease is serious or annoying, they may not take action to prevent it.  In the case above, people may not think that diarrhea is a serious disease or a serious danger to their children.  They may for instance see diarrhea as no more dangerous than a mild cold, not warranting prevention.

## 3.  Perceived Action Efficacy

Another determinant is whether or not the person believes the preventive action actually works (i.e., if it can indeed prevent the disease or problem).  If people think the preventive action you are promoting does not work to prevent the problem or disease, then they will probably not do it.  In the case above, people may not think that adding chlorine to their water will work to control diarrhea.  For instance, they may believe diarrhea originates from bad air, witchcraft, or spiritual causes.  If this is the case, the idea of adding bleach to water will make little sense to them.

## 4.  Perceived Social Acceptability

The next determinant to take into account is whether or not people believe the action is socially acceptable in their community or in their family.  If someone thinks their neighbors or family would criticize them for adopting a particular health practice, they probably will not do it, regardless of their personal opinion.  In the case above, neighbors or other family members might chastise a mother for adding bleach to water.  They may do this because they believe, for instance, that it will harm the child, destroy some beneficial properties in the water, or offend the spirit of the water source.  There are many reasons the practice may not be socially acceptable.

## 5.  Perceived Self-Efficacy

Whether or not the person thinks the preventive action is or would be easy for him or her to do is another determinant.  If a person believes an action is too difficult for them to do, he or she is not going to do it.  This includes (but is not limited to) having the required knowledge or skills, and the cost in terms of time and money.  In the case above, if the mother does not know how to correctly purify water, feels that the process is too difficult, or feels it is too expensive she probably will not use it.

## 6.  Cues for Action

One more determinant is whether or not the person can remember the preventive action.  A cue is something which helps you remember something else.  A person's opinion about the action working does not matter, if they cannot remember to do an action or cannot even remember the action itself.  In the example above, perhaps people simply cannot remember how to mix the chlorine and water (perhaps the instructions were given in terms of measures not commonly used in the village, such as milliliters or gallons, rather than in simple terms villagers would better remember.

## 7.  Perception of Divine Will

Another determinant is if the person believes it is God's will (or the gods' will) for him or her to have the problem and to not overcome it.  When someone believes it is not God's will for them to avoid or be released from a disease or problem, they probably will not do anything to try to avoid or be released from it themselves.  For example, a family may not try to save the life of a child with severe diarrhea if they think that it is God's will that only the strong children should survive.

## 8.  Negative and Positive Attributes

Attributes are characteristics of something.  In addition to the seven determinants noted above, which are barriers, there are things which are sometimes associated with a given preventive action which may make a person more likely to do or not do a given behavior.  These factors may or may not have anything to do with health or some other aspect of community development, nor do they necessarily have anything to do with the other barriers.  They have to do with personal preferences.  For instance, some people may dislike the taste of chlorine in water.  (In a rural village in northern Kenya we found a group of mothers who preferred the taste of muddy water from ponds to that of filtered water.  Interestingly however, they were open to the use of bleach to purify their water because it gave the water a similar taste to that of a larger neighboring town, which they saw as positive.)

Barrier analysis provides an excellent methodology for exploring barriers such as those noted above and for using the results of the barrier analysis study to develop and promote effective behavior change messages.  An excellent facilitator's guide for the use of Barrier Analysis is available by ctrl-clicking on the following link:

Barrier Analysis Facilitator's Guide – *Barrier Analysis Facilitator's Guide: A Tool for Improving Behavior Change Communication in Child Survival and Community Development Programs*, by Thomas P. Davis Jr. (2004).  Washington, D.C.: FH.

# CHAPTER 5: MONITORING AND EVALUATION (M&E) TOOLS

## REVIEW

**Chapter 1** of this manual provided a framework for designing high quality food security programs, detailed a four-step method for *macro-targeting*, described the purpose of, and steps for, conducting a *HFSA* and introduced a variety of tools (*RRA/PRA/HCA and AI*) that may be used as part of the HFSA process.

**Chapter 2** explored the five steps of program design: *analysis of the operating environment*, *problem identification and analysis, development of the program strategy, design of the M&E system and resource planning*.

**Chapter 3** introduced the activity that typically signals the start of program activities, the *baseline study*. Within this Chapter we considered *qualitative and quantitative research methodologies*, introduced *sampling guidelines*, introduced *guidelines for conducting quantitative baseline surveys*, and introduced various guidelines and tools for *specialized measurements* often associated with baseline surveys for food security programs.

**Chapter 4** explored various aspects of innovative program implementation practices and tools including: *Training and Adult Learning – Methods and Messages*, *Positive Deviance / HEARTH Nutritional Rehabilitation Programming in Nutrition, Care Groups*, *Trials of Improved Practices*, *and Barrier Analysis*.

## INTRODUCTION TO CHAPTER 5

In **Chapter 5** of the manual we will turn our attention to M&E. In this Chapter we will examine: *Functions of M&E, Primary Aims of an M&E system, Five Strategic Areas of M&E Inquiry, Six Key Steps in Establishing an M&E System, and Documenting the M&E Plan. We will also provide brief descriptions and links to a number of helpful resources (M&E standards, guides and tools) to assist users with the design and implementation of effective M&E systems.*

## Description

A *M&E system* is the set of activities, resources, processes, and tools necessary to collect, manage, analyze, report and disseminate information for program decision-making and for providing information needed by stakeholders.

*Monitoring* is often defined as systematic and purposeful oversight of project or program implementation activities. It is a process of routinely gathering and recording information on all key aspects of program implementation including the extent to which input deliveries, work schedules, other required actions and targeted outputs are proceeding according to plan so that timely action can be taken to correct the deficiencies detected,

thus ensuring effective operations.  Monitoring also involves giving feedback about the progress of the project to the donors, implementers and beneficiaries.

*Evaluation* is often defined as "the process of assessing or judging the value of what a project or program has achieved particularly in relation to activities planned and overall objectives."  A good evaluation process should provide a clear picture of the impact of the program (what, where, when and how the situation has changed), the extent to which the intended objectives of the activities and project have been realized (how much change has occurred) and why the program has been successful or unsuccessful in meeting its objectives.  Where monitoring focuses on regular information-gathering and the frequent checking on short-term progress, evaluation events are often more periodic and ask more fundamental questions about the overall progress and direction of a program.

Having offered definitions for "monitoring" and "evaluation" above, we should note that there is no clear consensus on definitions for these terms.  For instance, the Food Aid Management (FAM) M&E Working Group states that: ". . . the group recognizes that monitoring and evaluation are two basically separate processes . . . Monitoring is understood in this context to be a management tool, while evaluation is defined as a measurement tool."[27]  By contrast, IFAD's *Guide for Project M&E*[28]  makes no absolute distinction between monitoring and evaluation because "in practice the two processes overlap and are part of a systematic participatory learning process.  For example, if regular monitoring reveals that things are not going as expected, you might find it necessary to undertake a more thorough, thematic evaluation to understand why and know what changes can be made."

In the following introduction we will focus on M&E as a system.  While we will discuss functions of each process, we will not seek to draw absolute distinctions between the two processes.

## Introduction

Ultimately the aim of any FH program is about making the best possible use of the resources at our disposal to improve and transform individual lives and communities – to impact their well-being to the maximum.  Indeed, this is not only our aim, but the standard to which we desire to hold ourselves accountable.  But this aim is easier said than done.  We often must plan and implement our programs within extremely challenging and rapidly changing environments and do so with imperfect knowledge of a plethora of variables that may influence program outcomes.  To achieve maximum impact within this environment we must:
   1. Maintain an improvement-oriented environment of reflection and learning among our staff and all program stakeholders;
   2. Have timely and reliable information about the progress of program activities and their outcomes;
   3. Have a good understanding of the reasons for program success and failures within the contexts that our programs are implemented; and

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[27] Food Aid Management, <u>FAM Monitoring and Evaluation Working Group Proposal for PVO Collaborative Effort</u>, March 18, 1998.
[28] International Fund for Agricultural Development (IFAD), *Guide for Project M&E,* http://www.ifad.org/evaluation/guide/

4. Have the ability to adapt our program strategy and activities as necessary to respond to new information and changing conditions.

These needs highlight the core purposes of, and need for, an effective M&E system. Primary aims of an M&E system include:
- Ensuring an improvement-oriented reflection and learning environment for our staff and stakeholders;
- Using learning to ensure effective operations;
- Using learning to maximize the impact of our development programs; and
- Holding ourselves accountable for demonstrating impact.

# 5.1  FIVE STRATEGIC AREAS OF M&E INQUIRY

In broad terms our M&E system should provide information needed for improvement-oriented decision-making centered around five strategic areas of inquiry:

1.  Relevance – Is what we are doing a good idea in terms of improving the situation at hand?  Is it dealing with the priorities of the target groups?  Why or why not?
2.  Effectiveness – Have the plans (purposes, outputs and activities) been achieved?  Is the intervention logic correct?  Why or why not?  Is what we are doing now the best way to maximize impact?
3.  Efficiency – Are resources used in the best possible way?  Why or why not?  What could we do differently to improve implementation that would result in maximizing impact (at an acceptable and sustainable cost)?
4.  Impact – To what extent has the program contributed toward achieving the stated program objectives?  Why has it been successful or unsuccessful?  What unanticipated positive or negative consequences did the program have?  Why did they arise?
5.  Sustainability – Will there be continued positive impacts as a result of the program after the program funds run out?  What about four or five years after the program has ended?

# 5.2 SIX KEY STEPS IN ESTABLISHING THE M&E SYSTEM

The six key steps involved in designing an M&E system are:
1. Defining the purpose and scope – why is the M&E system needed and how comprehensive must the M&E system be?
2. Defining our performance questions, information needs and indicators – what do we need to monitor and/or evaluate within the program in order to manage it well?
3. Planning information collection and organization of the information – how will we gather and organize the required information?
4. Planning reflection processes and events – how will we analyze and make sense of the information we gather and how will we use it to make improvements?
5. Planning for communication and reporting – how and to whom do we need to communicate and what information do they need?
6. Planning for necessary conditions and capacities – what is necessary to ensure that our M&E system will function as intended throughout the life of the program?

## Step 1. Defining the Purpose and Scope

Clear definition of the purpose and scope of the M&E system is necessary for deciding on issues such as the numbers of indicators to track, the type of communication needed, the staff and budget you will need to implement your M&E system, etc. M&E systems may range from simple to highly sophisticated, depending on informational needs. Considerations in defining the scope of the M&E system include:

- The level of detail needed in terms of quantitative or qualitative data;
- The degree of precision required relating to data collected;
- The type of baseline and subsequent evaluations anticipated;
- Staff capacity required and labor costs involved;
- Current M&E capacities among staff, primary stakeholders and partner organizations;
- The level of funding available for M&E purposes; and
- The desired level of participation in M&E of primary stakeholders and partner organizations.

Typically FH food security programs are complex programs that require sophisticated M&E systems requiring a high level of expertise in qualitative and quantitative research methods and extensive information management.

## Step 2. Defining our Performance Questions, Information Needs and Indicators

In defining our performance questions, information needs and indicators it is important that we keep in mind M&E needs related to three important considerations: *ensuring effective operations*, *ensuring program performance*, and *monitoring the program's external context*.

### A. Ensuring Effective Operations

Ensuring effective operations requires putting in place the practical and operational conditions for carrying out program activities efficiently. Operations are typically guided by annual work plans and budgets, and by regular meetings with managers and

stakeholders.  In considering M&E needs related to effective operations it is often helpful to think in terms of efficient control of program *inputs*, *activities* and *outputs.*

Program *inputs* refer to the set of resources that are the raw materials used in the program.  These include the human and financial resources, physical facilities, equipment and operational policies which enable program services to be delivered.  In the case of agro-forestry activities supported by a food-for-work program, for example, inputs might consist of extension staff, seedlings, equipment for digging wells and irrigation structures, community labor employed on the activity, as well as food commodities used as  payment for tree-planting.  In an MCH program, the inputs might include health staff and facilities, drugs and equipment, as well as food used for the supplementary feeding of pregnant and lactating women and undernourished or faltering children.  The monitoring of inputs, such as recording port arrivals of food and supplies, maintaining payroll records and other administrative reports are typical functions already undertaken by most good monitoring systems concerned with sound management and accountability.

Program *activities* refer to the process by which program inputs are used to obtain the program's expected results.  These processes can be broken down according to specific functional areas.  These areas are fairly generic in their application across program types, including management and supervision of various components of the program, counterpart training, beneficiary training, logistics and service delivery, as well as information systems.  Activities are typically monitored in terms of their relevance to outputs (see below).

Program *outputs* refer to the results of program activities at the program-level, regarding the quality and quantity of goods and services delivered under the program.  Program outputs may refer to:

- *Functional area outputs* are closely related to managerial issues such as hiring, training and supervising staff; control of equipment goods, and buildings (warehouses and offices); managing contracts for subcontracted work; etc. Activities related to these outputs that a program may need to monitor include:
    - o Staffing – tracking numbers, salaries, capacities and quality of staff performance;
    - o Equipment, goods and buildings (warehouses & offices) – tracking amounts, qualities and values of materials or commodities per location; for planning and tracking deliveries; for ensuring good commodity management (commodity audits);
    - o Contracts – for tracking quantity and/or quality of sub-contracted work related to program implementation, including contracts with communities about their rights and responsibilities;
    - o Finances – for tracking expenditures in order to (re-)allocate resources as necessary, for ensuring good financial management practices (financial audits);
    - o Work planning – tracking annual work plans for individual staff members, project teams, and for the program as a whole; and
    - o Communications – tracking schedules for production and dissemination of all communiqués, presentations, reports and publications needed for decision-making and accountability.

- *Service outputs* are outputs related to the access to, and the quality of, services provided.  Activities related to service outputs that a program may need to monitor include:
  - Improved access to services – tracking the number of locations or outlets of agricultural inputs in the target area, the number of water systems constructed, the number of latrines built, number of communities with growth monitoring programs established, number of training courses realized on a given topic, etc.; and
  - Improved quality of services – tracking changes in the variety of agricultural inputs available through local outlets; satisfaction of participants related to services they receive at the local health post; level of satisfaction of participants with latrines and water systems constructed, satisfaction of participants with training course content, changes in cost of services, reductions in time spent traveling to health facilities or markets, etc.

- *Service utilization outputs* are outputs that show the degree of service utilization by program beneficiaries.  Examples of typical monitoring activities related to service utilization outputs include: tracking numbers of people (or percentage of the target population) attending specific training courses, percentage of the target population with latrines, percentage of eligible children measured in growth monitoring program, etc.

Ensuring effective operations is typically aided by monitoring processes and tools established within the larger M&E system.

## B. Ensuring Program Performance

The program's logical framework (discussed in Section 2.4. of this manual) establishes the *quantitative* measurements of performance of our program by clearly describing the program's  strategic objectives, intermediate results and outputs; as well as the activities by which they will be met.  Key performance questions and indicators (at SO, IR, Outputs and Activities levels) are summarized within the logframe under "Indicators of Achievement" (column 2).   If objectives and indicators included within the logframe have been properly developed, as described in Section 2.4., they will clearly describe what, where, when and how the situation will have been changed.  Additionally, the main M&E mechanisms to gather data for each indicator should be clearly summarized in column 3 of the logframe under "means of verification" (refer to logframe template below).

**Table 14: The Logframe Matrix**

| Project Structure | Indicators of Achievement | Means of Verification | Important Risks and Assumptions |
|---|---|---|---|
| **Strategic Objective:** What is the broad objective which the activity will help achieve? | What are the quantitative measures or qualitative judgments, by which the impact change in the SO can be judged? | What sources of information exist or can be provided to allow the SO to be measured? | What external factors are necessary to sustain the SO in the long run? |
| **Intermediate Results:** What are the intended changes in conditions or behaviors? What are the benefits, to whom? | What are the quantitative measures or qualitative judgments, by which achievement of the IRs can be judged? | What sources of information exist or can be provided to verify the achievement of the IRs? | What external factors are necessary if the IRs are to contribute to achievement of the SO? |
| **Outputs:** What outputs (deliverables) are to be produced in order to achieve the purpose? | What kind and quality of outputs and by when will they be produced? (QQT: Quantity, Quality, Time) | What are the sources of information to verify the achievement of the outputs? | What are the factors not in control of the project which are liable to restrict the outputs achieving the IRs? |
| **Activities:** What activities must be achieved to accomplish the outputs? | What kind and quality of activities and by when will they be produced? | What are the sources of information to verify the achievement of the activities? | What factors will restrict the activities from creating the outputs? |

While the indicators in our logframe help to answer the questions of *what, where, when* and *how* the situation will have been changed; they do not necessarily explain *why* there has been success or failure or *what has been learned* to improve future action. For example, in a child survival program in Mozambique we found that program objectives as stated in the logframe were significantly exceeded. Malnutrition declined rapidly from 50 percent to 30.3 percent. Severe malnutrition of children 5 and younger dropped from 25 percent to 13 percent. Exclusive breastfeeding among children 4 months and younger, rose from 46 percent to 61 percent, children 6-10 months receiving added oil to their weaning food rose from 29 percent to 73 percent and we saw reductions in diarrhea rates from 44 to 29 percent. But none of these statistics tell us *why* the change occurred. Important performance questions are unanswered by these statistics.

For instance, were there external factors that lead to these changes, such as a new source of employment or the opening of a new health post, or were changes in FH's program strategy responsible for the changes? If changes in the program strategy, what changes were responsible? In the case above, focus groups, semi-structured interviews and feedback sessions with beneficiaries were used within the M&E system to provide this important information and the *why* behind these impressive changes were linked to a Care Group system of regularly training volunteer mothers who then pass that health instruction on to their neighbors. With this understanding of why the change has occurred, the use of Care Groups has become a linchpin strategy within FH/Mozambique health programs and is being used as a model for improving FH health strategies in other countries.

In short, to ensure and improve program performance, good M&E systems must include multiple sources of quantitative and qualitative information to explain both *what is happening* and *why it is happening.*

## C. Monitoring the Program's External Context

Understanding the program's external context is also critical when it comes to assessing relevance of strategy and activities, anticipating operational problems, and judging a program's contributions. External context includes events external to the program which affect the relationship between outputs and impacts.

For example, our intermediate result objective may read: *By December 2007, 600 farmers in communities of Motomoto and Bolobolo will have increased their food production by 20% by growing crops in the upper jungle through the use of improved seeds and cropping practices.* Quantitative data from our M&E system may show that food production in Motomoto and Bolobolo only increased food production by 10% by December 2007. Should we then conclude that the program has failed? Without further information we have no basis to make that judgment. If a severe drought affected the project area in 2007, a 10% increase in food production could represent a phenomenal success. On the other hand, if the 2007 agricultural season was unusually favorable to agricultural production, a 10% increase in production could be less than that achieved by farmers who were not program beneficiaries and could represent a significant performance failure.

In health and nutrition programs, nutritional improvements might not be observed during the life of the program because of climatic instability, rising food prices or other factors beyond the control of the program. In the case of agricultural production, climatic conditions or prices of some agricultural inputs may also be beyond the control of the program, but have major implications for program performance. By measuring and controlling for these external factors, evaluations may still conclude that well-being would have been worse off in the absence of program efforts, thereby demonstrating a positive impact. External context that requires monitoring will often be identified in the assumptions section (column 4) of the logframe. Keep in mind however that as the context varies during the timeline of the program, monitoring of additional external factors may become necessary.

# Step 3. Planning information collection and organization of the information

For each information need or indicator, you must establish how information will be collected and organized. Consider the three examples below.

We may want to monitor *improvements in the quality of staff performance* as trainers. When and how this will be done should be clearly described in the M&E plan. In FH fields our monitoring tool of choice for this task is a Quality Improvement Checklist (QIC), so our choice in selecting the appropriate tool is straightforward (see M&E Tool links at the end of this Chapter for more information on QICs).

Monitoring *progress* on irrigation infrastructure may be somewhat more complicated and require a fairly sophisticated set of monitoring tools to ensure timely purchase and delivery of construction materials, schedules for organizing FH staff and local labor, and regular communication with staff and other stake holders to ensure that construction is

proceeding on schedule and that the quality of the construction is adequate.  Our choices in monitoring tools range from paper QICs and simple task management forms to extremely powerful program management software that will track inventories of supplies, delivery dates; balance team workloads and provide snapshot reports on progress of the infrastructure program.

Monitoring the *impact* of the irrigation project, in terms of changes in household income, presents us with even more choices.  Among our options: 1) We could conduct surveys of the entire target population or of a sample of the population on household income, 2) we could train farmers to maintain production and sales records and track that data; 3) we could use remote sensing to estimate production and value of production in the area; or 4) we might want to use village-led surveys and open discussions with impact flow diagrams about how life has changed as a result of irrigation.  Not only will each indicator we choose require choosing a different method, but for each indicator or information need we will usually have several quantitative or qualitative methods available for gathering that information.

In the examples above we see that in some cases our M&E choices are straightforward, while in others we have a variety of options.  On what basis then do we select our indicators and methods for collecting, compiling and analyzing information?  Here are some tips for establishing criteria that may be helpful:

1. Particularly important at the moment of method selection is knowing who will be involved in collecting, compiling and analyzing the information.  If the intended users of the methods can be involved in selecting or developing the methods, it is more likely that they will understand them and use them correctly.  If methods are selected by "specialists" not involved in collecting, compiling and analyzing the information, then it will be essential to train the users in the selected methods.
2. Keep in mind that seeing monitoring as a learning process implies that staff and partners at all levels of program implementation should be involved in analysis of the information and in agreeing upon actions to be taken based upon that analysis.  Therefore, data collection and analysis will ideally be undertaken with those to whom the data, analysis and decisions pertain.  For instance, field staff need to understand what is happening in the communities in which they work, while the program manager needs to analyze what is happening across the entire program area.
3. Carefully consider the advantages and disadvantages of each option in terms of time needed to collect data, cost, reliability of data, skill needed, the ability of each option to provide quick and relevant feedback on findings, and the richness of the information generated.

## Step 4. Planning Reflection Processes and Events

How to involve people in making sense of data generated from the M&E process, and in considering the implications of the data to program strategy and operations, is not described in the logframe and seldom receives the attention it deserves.  Preparing a critical reflection schedule within the M&E plan can help to ensure that that this important aspect of M&E is not neglected during program implementation.

The following example of a Critical Reflection Schedule is adapted from the IFAD *Guide for Project M&E* (Chapter 4, pg. 13).

**Table 15: Critical Reflection Schedule**

| Critical Reflection Process or Event | Purpose and Description | Whom to Involve | Timing |
|---|---|---|---|
| Participatory Review of the Program Strategy | Update the situation analysis, revise problems/visions, and adjust objective hierarchy and assumptions. | Reps from intended primary stakeholders and partners, all FH program staff, facilitator. | A 3-day workshop at as soon as funding is ensured for the program. |
| Development of the M&E Plan with Stakeholders | Assess information needs for operations and performance, agree on priority information areas, refine questions/indicators/ decide on methods, agree on responsibilities. | Reps from intended primary stakeholders and partners, all FH program staff, facilitator. | Two full-day meetings prior to drafting baseline study. Two full-day meetings to review baseline study draft and focus on ensuring effective operations. |
| Quarterly Progress Reviews | Discussion of key successes and problems. | Senior staff and key partners | One-day meeting every three months. |
| Annual Program Review | Summary of key successes and problems, ideas for changing project activities/outputs/assumptions, review of implications for the logframe, identification of lessons learned, M&E system adjustments. | Reps from primary stakeholders and partners, all FH program staff, facilitator. | Two full days, once a year |
| Periodic Review Workshops | Etc. | Etc. | Etc. |
| Field Visits | | | |
| Etc. | | | |
| Note: Primary stakeholders will have their own schedule of events, as will implementing partners. The art of participatory M&E is to link these different schedules for shared learning. |||| 

Keep in mind that while critical reflection can be facilitated during project meetings and workshops with partners, and included in evaluation events, it should also take place informally during field visits, in conversations with beneficiaries during home visits, etc.

## Step 5.  Planning for Communication and Reporting

During start-up, develop a detailed plan for your communication strategy.  This strategy should include formal reports and other communications that will provide feedback about internal findings, and discuss actions needed in response to those findings.  Tips for planning your communication strategy:

1. With representatives of all key stakeholders, prepare a list that includes the following:

| Audiences for M&E Communications | Information Needed by Each Audience | When Information is Needed | Format in Which Information is Needed |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

2. Spend some time discussing why each of these audiences needs information. (To clarify responsibilities? For accountability? To influence and gain more support for field activities? To provide input for discussion or feedback?)
3. Schedule clearly the production of information needs, showing who is to do what, and by when, in order to have the information ready on time.
4. Organize the events during which the information is to be communicated and discussed.

## Step 6. Planning for Necessary Conditions and Capacities

The following question guide is helpful in detailing plans for establishing the conditions and capacities necessary for our M&E systems.

Table 16:  Question Guide[29]

| Conditions and Capacities | Questions to Guide Detailed Planning |
| --- | --- |
| Human capacity for M&E | • What are the existing M&E capacities with program partners?<br>• What training will be necessary?<br>• What consultancy support will be required? |
| Incentives for implementing M&E | • Are M&E responsibilities included in job descriptions and terms of reference?<br>• How will reflection and learning among staff, partners and the intended primary stakeholders be encouraged? |
| Organizational structures | • Will there be an M&E unit or will M&E be spread among all parties?  If there is a unit, how many people will it have and where will it be located?  Under whose authority?<br>• How closely connected will M&E staff be with program management? |
| Management information systems (MIS) | • What information must be stored and accessible, when, how and for whom?<br>• What level of computerization is required and appropriate?<br>• What expertise will be required to set up the information management system? |
| Financial resources | • Is there a separate M&E budget and have sufficient resources been allocated?<br>• Has the staffing allocation for the program taken into account the time needed for all relevant staff to undertake M&E activities? |

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[29] Adapted from the IFAD *Guide for Project M&E* (Chapter 4, pg. 15).

# 5.3  DOCUMENTING THE M&E PLAN

M&E plans should be documented as an annex to the food security program implementation plan and thoroughly coordinated with both the overall implementation plan and with annual work plans.  Plans for the M&E system should include the detail described below.

## Part 1 Purpose and Scope

Including an overview of the program and its objectives, rationale and justification for the design of the M&E system.  A description of how the M&E system will support project management, meet reporting requirements and meet the information needs of stakeholders.  Discussion of the balance between qualitative/quantitative research approaches.

## Part 2 Approach

Including an overview of how stakeholders will be involved, what learning-oriented approaches will be used, and a general description of what information gathering and analyzing methods will be used.  For example, a brief description of the extent to which participatory approaches, geographic information systems, computer information systems (including Pocket-PCs), KPC and other survey tools will be used.

## Part 3 Information Needs

Including the current version of the logical framework with corresponding performance objectives, indicators, information needs and sources (means of verification).  Precise definitions of performance objectives, indicators and informational needs for all levels of the objective hierarchy should be included.  Information needs of stakeholders and those related to the program's external context (climate, prices, the political environment, etc.) should also be included.

## Part 4 Management Information System and Reporting

Including the purpose of the management information system.  Who, what, when, where and how information will be gathered and synthesized for each expected information product.  A schedule of information production and reporting outputs (who, what, when, to whom, and for what purpose).  Specifically how information networks and computer systems are expected to function, including an outline of data storage needs and back-up plans to safeguard data.

## Part 5  The M&E Plan

Including a precise definition of methods to be used with different stakeholder groups for two core purposes:
1. M&E of activities and implementation for effective project operations including monitoring of project resources, program activities, and other monitoring activities; and
2. M&E of outcomes and impact for guiding the program strategy including proposed surveys; annual assessments and planning workshops; mid-term and program completion evaluations; a M&E work plan and schedule of key events and reporting/decision-making moments; and a critical events agenda.

# Part 6 Establishing Conditions and Capacities

M&E organization, necessary institutional and stakeholder linkages; how the M&E unit relates to the project management structure and hierarchy of authority; human resource needs for the M&E unit and for M&E activities; training needs of stakeholders and staff; and resource needs such as vehicles, equipment, and technical assistance.

# Part 7 The M&E Budget

Including a full description of budget needs and budget allocation.

# Part 8 Appendices

Appendices should include original and revised logframes; lists of proposed indicators with formats for data collection; an annual schedule of activities; outline formats for preparing all needed reports – including status reports on project inputs and resources, project outputs and results, and evaluation studies; the baseline survey questionnaire; job descriptions for M&E staff and descriptions of M&E duties for other staff; terms of reference for any needed technical assistance; and the M&E work plan.

Because the full M&E implementation plan contains an enormous amount of detail, summaries of the implementation plan are needed to keep all staff involved with M&E activities focused on their responsibilities. A variety of formats may be used to summarize the M&E plans, provided below are a few useful examples.

### M&E Milestone Calendar

**Table 17: M&E Milestone Calendar**

| Year | Activity | Responsible Person or Unit |
|---|---|---|
| Y1, 1st Quarter | • Participatory Review of the Program Strategy<br>• Development of the M&E Plan with Stakeholders | • Program Management & Facilitator |
| Y1, 2nd Quarter | • Baseline Survey (Implementation)<br>• Baseline Data Entry<br>• Child nutritional monitoring | • Program Management & Consultant<br>• M&E Unit and Consultant<br>• Health Unit/field staff |
| Y1, 3rd Quarter | • Baseline Survey (Statistical Report)<br>• Baseline Survey (Analysis)<br>• Baseline Survey (Narrative Report - Findings)<br>• Dissemination of Baseline Report | • M&E Unit and Consultant<br>• Program Management<br>• Program Management (assisted by M&E Unit)<br>• Communications Unit |
| Y1, 4th Quarter | Etc. | Etc. |

## M&E Activity Calendar

**Table 18: M&E Activity Calendar[30]**

| Method or tools | FY04 | | | | | | | | | | | | FY05 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S |
| Health KPC | | | ▓ | | | | | | | | | | | | | | | | | | | | | |
| Anthropometric survey | | | ▓ | | | | | | | | | | | | ▓ | | | | | | | | | |
| Lowlands Livestock | | | ▓ | | | | | | | | | | | | | | | | | | | | | |
| Mountain Liv.NRM | | | ▓ | | | | | | | | | | | | | | | | | | | | | |
| Min agric. KPC | | | | | ▓ | | | | ▓ | | | | | | | | ▓ | | | | ▓ | | | |
| CROPCUTS | | | | | ▓ | | | | ▓ | | | | | | | | ▓ | | | | ▓ | | | |
| Monthly reports | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ |
| Education statistics | | | ▓ | | | | | | | | | | | | ▓ | | | | | | | | | |
| CDP reports | ▓ | ▓ | | | | ▓ | | | ▓ | | | ▓ | ▓ | ▓ | | | | ▓ | | | ▓ | | | ▓ |
| Census of livestock markets | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ |

| Method or tools | FY07 | | | | | | | | | | | | FY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S |
| Health KPC | | | | | | | | | | | | | | | ▓ | | | | | | | | | |
| Anthropometric survey | | | ▓ | | | | | | | | | | | | ▓ | | | | | | | | | |
| Lowlands Livestock | | | | | | | | | | | | | | | ▓ | | | | | | | | | |
| Mountain Liv.NRM | | | | | | | | | | | | | | | ▓ | | | | | | | | | |
| Min agric. KPC | | | | | ▓ | | | | ▓ | | | | | | | | ▓ | | | | ▓ | | | |
| CROPCUTS | | | | | ▓ | | | | ▓ | | | | | | | | ▓ | | | | ▓ | | | |
| Monthly reports | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ |
| Education statistics | | | ▓ | | | | | | | | | | | | ▓ | | | | | | | | | |
| CDP reports | ▓ | ▓ | | | | ▓ | | | ▓ | | | ▓ | ▓ | ▓ | | | | ▓ | | | ▓ | | | ▓ |
| Census of livestock markets | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ | | | ▓ |

## Sample M&E System Plan Summary

A M&E plan should be included as a part of project design. M&E activities should be scheduled in all program implementation and annual work plans.

Note: To save space on this matrix, rather than repeating details here, just list the monitoring or evaluation events. In a separate table, give the details (e.g., schedule, data collection methodology, etc.) for each M&E event (e.g., baseline, monthly monitoring, annual self-evaluation and report, mid-term and final evaluation, etc.)

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[30] FHI/Kenya.

**Table 19: Sample M&E System Plan Summary[31]**

| Level of Project Hierarchy | Operational Indicators: Measures from the logic model used to ascertain or verify that a planned change has occurred. | Data Needed: What specific data will be necessary to characterize the indicator? Depending on the indicator, one or many types of data (variables, types of evidence) may be needed. | Timeframe: How often will data be collected? (e.g., at baseline and project end? Monthly? Quarterly?) | Source Collection: From where and how will the data be collected? (e.g., Household survey, community PRAs, district-level secondary data) | Data Analysis: How will the data be analyzed? (e.g., Statistical tests, tables, cross-tabs, graphs) | Dissemination/ Utilization: What reports will be generated from the information? How and with whom will it be shared and used to improve the project? | Responsibilities: Who is responsible for data collection and analysis? |
|---|---|---|---|---|---|---|---|
| **Strategic Objective** | | | | | | | |
| **Intermediate Results** | | | | | | | |
| **Outputs** | | | | | | | |
| **Activities** | | | | | | | |

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[31] Adapted from CARE, *Project Design Handbook, July 2002.*

# 5.4 LINKS TO M&E TOOLS, STANDARDS AND GUIDES

The following pages of links are a work in progress. The FH Food Security Unit will be adding new resources and tools in future revisions of this manual. The linked tools can be accessed from the CD on which this manual is provided by <crtl>-right-clicking on the tool links with your mouse, or downloaded from the referenced web pages.

## A. Tools for Monitoring Functional Area Outputs

Quantitative Output Checklists [Word Format]
In any given program, there are a set of tasks and activities that are conducted over the life of the program that are intended to produce quantifiable outputs. For example, well construction activities are intended to produce a certain number of water wells. For all this quantifiable outputs, it is important to have checklist tools in order to keep track of what is being accomplished, under what time frame, and at what cost. The linked checklist is a brief example of how a simple quantitative output checklist can be used to track progress on a monthly or quarterly basis.

Commodities Storage Inspection Checklist [Word Format]
This checklist is taken from the Commodity Reference guide from the USAID Office of Food for Peace (FFP).

Commodities Loss Status Claim Monitoring Form [Word Format]
A simple format for monitoring the status of commodity loss claims.

## B. Tools for Monitoring Quality of Service Delivery and Key Processes

Quality Improvement and Verification Checklists (QIVCs)  [Word Format]
Quality Improvement and Verification Checklists (QIVCS) provide information on the quality of key processes done in an organization in agriculture, health, administration, and other areas, and how the quality changes over time. QIVCs are particularly helpful in tracking and monitoring improvements in staff capacity and performance over time. This link provides an in-depth introduction to QIVCs and provides a variety of samples including the following: *KPC Interview Evaluation Form, Checklist For Growth Monitoring & Counseling, Checklist For Education Sessions By Community Development Workers (HWS), Checklist For Education Sessions By Community Development Workers (CDWs), Immunizations Quality Improvement Checklist, Checklist For Individual Counseling By Community Health Workers, LQAS Quality Improvement Checklist, Nonformal Education Methods Checklist for Use of Stories, and a Vitamin A Quality Improvement and Verification Checklist.*

## C. Tools for Monitoring Client Satisfaction

Focus Groups and Key Informant Interviews [English] [French]
*Focus groups* and *key informant interviews* are often used while conducting pre-program appraisals and as a preliminary step in preparing for a quantitative baseline survey. They may also be used effectively as a monitoring tool to measure customer satisfaction. This document describes these two tools and how they may be used to monitor on-going programs.

# D. Tools for Monitoring Adoption of Practices (Techniques/ Behaviors) and Acquisition of Knowledge

Pre-tests and Post-tests [Word Format]
Tips for using pre-tests/post-tests to measure learning retained in an educational or training session and FHI's Training Notes: Using Pre- & Post-tests in Trainings (by Tom Davis, MPH, FH International).

Rotating Mini KPC Surveys [Word Format]
Rotating mini-KPC surveys may be used to monitor changes in knowledge, practice and coverage of program beneficiaries.  Changes in KPC indicators over time can be useful in supporting the findings of impact evaluation data.  This document describes FHI's use of mini-KPCs in Mozambique; the description of this methodology should provide an adequate description for other fields to understand and implement this methodology.

Growth Monitoring and Promotion Using the Behavior Box [Word Format]
Growth Monitoring using the "behavior box" allows project staff to monitor nutritional status, changes in weight, and key health and nutrition behaviors (e.g., exclusive breastfeeding) of project beneficiaries.  This document describes the use of this methodology by FOCAS, FHI and other organizations.

Lot Quality Assurance Sampling (LQAS)
LQAS may be used for routine monitoring of the coverage level achieved so that program staff can provide supervisors with the up-to-date information they may need for providing supportive supervision to the staff they supervise.  This document describes in detail the use of LQAS.  (Also see Sampling Methodologies section of this manual for links to additional resources on LQAS.)

# E. Tools for Conducting a Participatory Evaluation

USAID TIPS Conducting a Participatory Evaluation [PDF]
IFAD Methods for M&E [PDF]
IFAD Toolkit for Development Practitioners [PDF]

# F. Tools for Conducting a Quantitative Evaluation

Agricultural Production KP Questionnaire
Moz Child Survival KPC Feb 8th (0-11m old children)
Moz Child Survival KPC Feb 8th (12-23m old children)
HIV/AIDS ABY KPC questionnaire INFLUENCERS of Single Youth
HIV/AIDS ABY KPC questionnaire MARRIED People
HIV/AIDS ABY KPC Survey SINGLE Youth No Parental Consent for Sensitive Questions
HIV/AIDS ABY KPC Survey SINGLE Youth
KPC 2000+

# G. Links to M&E Standards, Guides and Tools

IFAD's A Guide for Project M&E [Zip format]   (Highly Recommended Document)
International Fund for Agricultural Development's *A Guide for Project M&E* is a comprehensive and highly recommended guide to M&E.  The guide includes the following sections: 1) Introducing the M&E Guide; 2) Using M&E to Manage for Impact;

3) Linking Project Design, Annual Planning and M&E; 4) Setting up the M&E System; 5) Deciding What to Monitor and Evaluate; 6) Gathering, Managing and Communicating Information; 7) Putting in Place the Necessary Capacities and Conditions; and 8) Reflecting Critically to Improve Action.  Annexes include: A) Glossary of M&E Concept and Terms; B) Annotated Example of a Project Logframe Matrix and Logframe Explanation; C) Annotated Example of an M&E Matrix; D) Methods for M&E (quantitative and qualitative research methods and, random and non-random sampling methods); E) and Sample Job Descriptions and Terms of Reference for Key M&E Tasks.  Link to Spanish Version A Guide to Project M&E (Spanish) (Spanish).  Website http://www.ifad.org/evaluation/guide/.

FANTA Food Security Indicators and Framework for Use In M&E of Food Aid (1999) [PDF]
This guide by Riely, Mock, Cogill, Bailey and Kenefich was published by FANTA in 1999 to assist in the identification of food security indicators to be used in the M&E of U.S. P.L. 480 Title II food aid programs and with the integration of food security indicators into the M&E systems of food-assisted programs.  Issues such as poverty, ecological constraints, and inappropriate policies which lead to the food insecurity of households and individuals in the developing world are examined in the context of program design, M&E, particularly in terms of USAID's food security framework and the three dimensions of availability, access and utilization and the nature of their relationship to one another. Specific information requirements for field staff, program managers, host governments and donors, and the program beneficiaries themselves are considered within the M&E system context.  Section 4 defines and discusses specific indicators collected and used in food security programs and defines an approach for the construction of a range of food security indicators and criteria against which to judge the utility of indicators within an M&E system.

ALNAP's Quality Proforma [Evaluation Standards] (2005) [PDF]
The **A**ctive **L**earning **N**etwork for **A**ccountability and **P**erformance in Humanitarian Action (ALNAP) is an international, interagency forum working to improve learning, accountability and performance across the Humanitarian Sector.  ALNAP's *Quality Proforma* (2005) for assessing the quality of evaluations of humanitarian action provides standards and checklists for assessing various aspects of the evaluation process.  The *Quality Proforma* is divided into six sections: 1) Assessing the Terms of Reference; 2) Assessing Evaluation Methods, Practice and Constraints; 3) Assessing Contextual Analysis; 4) Assessing the Intervention; 5) Assessing the Report; and 6) Overall Comments.  Website:  http://www.alnap.org/pdfs/QualityProforma05.pdf

Title II Evaluation Scopes of Work (2002) [PDF]
This technical note produced by the FANTA Project is an excellent reference for managers, program implementers and evaluation teams as it provides standard items to include in Scopes of Work for process and impact evaluations. Examples of evaluation questions are given for several sectors: agriculture, infrastructure, microenterprise and microfinance, health and nutrition, and education. The evaluation questions are illustrative and can be tailored to the specific characteristics or emphases of each development assistance program. Website http://www.fantaproject.org/publications/tn2.shtml

# Acknowledgements and Additional References

Special Acknowledgement: The preceding introduction to M&E draws heavily upon information published in *A Guide for Project M&E*, produced by the International Fund for Agricultural Development (IFAD).  Readers may access the full text of the IFAD guide by clicking on the following link IFAD Guide for Project M&E, or may download the guide at http://www.ifad.org/evaluation/guide/.

USAID Center for Development Information and Evaluation *Performance Monitoring and Evaluation TIPS* offers the following resources online at http://www.usaid.gov/pubs/usaid_eval/:
> Conducting a Participatory Evaluation, 1996 #1 (PN-ABS-539)
> Conducting Key Informant Interviews, 1996 #2 (PN-ABS-541)
> Preparing an Evaluation Scope of Work, 1996 #3 (PN-ABY-207)
> Using Direct Observation Techniques, 1996 #4 (PN-ABY-208)
> Using Rapid Appraisal Methods, 1996 #5 (PN-ABY-209)
> Selecting Performance Indicators, 1996 #6 (PN-ABY-214)
> Preparing a Performance Monitoring Plan, 1996 #7 (PN-ABY-215)
> Establishing Performance Targets, 1996 #8 (PN-ABY-226)
> Conducting Customer Service Assessments, 1996 #9 (PN-ABY-227)
> Conducting Focus Group Interviews, 1996 #10 (PN-ABY-233)

USAID/GN/HIDN/Child Survival and Health Grants Program, *Technical Reference Materials – Monitoring and Evaluation*, August 2004.
http://www.coregroup.org/working_groups/ME_TRMS_2004.pdf

PACT, *Building Monitoring, Evaluation and Reporting Systems for HIV/AIDS Programs*. Washington D.C., 2005.

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Department for International Development (DFID), Tools for Development, A handbook for those engaged in development activity, September 2002.