Project Design Handbook

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This Chapter provides guidance for conducting a holistic program diagnostic assessment, the first stage in our project design framework. Holistic appraisal provides us with a number of tools to collect information we can use to identify constraints and opportunities around which the project will be designed.
Chapter 2: Holistic Appraisal

The first stage in our project design process is holistic appraisal. The term holistic appraisal implies a multi-dimensional view of livelihoods and factors, both internal and external, which influence livelihoods. Holistic appraisal is used to identify priority needs, describe livelihoods and search for key conditions that have an impact on livelihoods, and will lead us to the identification of the most vulnerable households. It will also place peoples' priorities and aspirations for improving their livelihoods firmly at the center of our analytical and planning process.

Holistic analysis concerns the assessment and analysis of human conditions, at a more macro level in strategic planning and a more micro level (geographically speaking) in project design. Though holistic analysis applies to both the program and the project levels, in reality it is usually more in-depth at the program level, as it is often neither feasible nor cost-effective to conduct a thorough, holistic diagnostic assessment for each individual project.

The holistic appraisal stage utilizes a number of tools for assessing problems and opportunities, identifying participants, and understanding the context of the geographic, institutional, economic and social setting around which the project will be designed. This chapter will provide you with general guidelines for using these tools to assess a project’s operating environment. We will define diagnostics, their uses in identifying participants, and present some of the many useful tools used in holistic appraisal including needs assessment, differentiation/disaggregation, stakeholder analysis, institutional assessments and gender analysis. Issues and guidelines for incorporating both a household livelihood security and rights-based approaches into holistic appraisal are covered throughout the chapter.

Incorporating CARE's Household Livelihood Security approach into holistic appraisal

CARE’s holistic approach to determining problems and their underlying causes, as well as opportunities for program and project activities, is a key principle of CARE’s Household Livelihood Security framework. An HLS approach to program planning and project design encourages the use of secondary data reviews as well as participatory people-centered diagnostic tools. Participation and empowerment are the basic tenets of the approach. An HLS Assessment involves taking into account the following components:

**Context** - What are the social, economic, political, historical, and demographic trends that influence the livelihood options of a given population and what are the risks to which they are exposed?

**Resources** - What are the various assets (financial, physical, social, human and natural) that households and communities have access to and how are they differentiated and disaggregated? Vulnerability is
determined by the risks that households and communities are exposed to and their ability to use assets or other means to cope with these risks.

**Institutions and Organizations** - The institutions that operate within a given context will be critical to sustainable livelihood outcomes. It is important for CARE and its partners to identify which government, civic groups and private sector institutions operate in a given livelihood setting to determine their relative strengths and weaknesses in delivering goods and services essential to secure livelihoods. The private sector has usually been left out of such analyses even though it can play a critical role in providing goods and services. A stakeholder analysis is a critical first step in any diagnosis.

**Livelihood Strategies** - A Holistic appraisal attempts to identify the various strategies people use to make a living and how they cope with stress. These are also referred to as adaptive strategies and coping strategies in the food security literature. It is important to determine the variability that may exist across ethnic groups, households and individuals in the pursuit of different strategies to tailor interventions appropriately.

**Livelihood Outcomes** - Outcomes are measured to determine how successful households are in their livelihood strategies. These outcomes can be based on normative standards (e.g., nutritional status) or be based on criteria identified by the communities (e.g., wealth ranking). Such outcome measures often need to be differentiated and disaggregated across groups (e.g., livelihood category, socio-economic status), households (e.g., by wealth status, gender of the head of household) and individuals (e.g., including gender and age).

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**Incorporating CARE's Rights Based Approach into holistic appraisal**

Incorporation of a rights-based approach requires the capacity to understand and take into account vulnerability and marginalization, diagnose power relations, and incorporate legal, policy and institutional analyses.

**Broadening our analytical framework to include all human rights.**

Human rights reflect an integral vision of what humanity is and, as such, represent a comprehensive yardstick for measuring human wellbeing. Even while CARE focuses on livelihood security conditions (e.g., food, water and sanitation, nutrition, health, education, and economic opportunity), we have to consider other conditions affecting livelihood security and, more broadly, life with dignity (i.e., the enjoyment – or lack thereof – of additional human rights, such as personal security, freedom of movement, and participation in public affairs). Such conditions are interdependent. For example, the pursuit of secure livelihoods is frustrated where members of a certain ethnic group are physically prevented from getting their goods to market, or women are not allowed to participate in community health or education associations.

While awareness of major gaps in the enjoyment of human rights may, in some cases, lead us to focus on new programmatic areas (e.g., domestic
violence or women’s political participation), our “core business” will remain
the advancement of livelihood security (or economic and social rights). In
pursuing our core business, we will better understand the bigger picture
facing the communities we serve, the inter-relationships between different
rights, and the need for collaborative and complementary action with other
organizations focusing on other parts of the human rights spectrum.

**Analyzing more deeply underlying and basic causes.** CARE is
accustomed to undertaking in-depth causal analysis of why households
behave the way they do. We are less accustomed to (and less equipped for)
analyzing, in a thorough, meaningful way, the political, economic, and socio-
cultural systems and relations at all levels that so powerfully influence
household-level conditions. Such analysis is essential for helping us to
understand the limits of more traditional responses (focusing on the more
immediate causes) and to explore the potential for higher impact
interventions.

Efforts are underway to build our capacity to analyze causes and power
dynamics between groups (i.e., relational analysis). Recent efforts to
incorporate greater analytical capacity in gender dynamics may be
instructive. In addition, our commitment to partnership and, more generally,
inter-organizational collaboration holds the promise of fruitful relationships
with groups that conduct research and analysis in just these areas.

### 2.1 Operating Environment (setting and context)

As discussed in Chapter 1, project design begins with the identification of
problems or opportunities and their causal linkages. In designing a project,
you identify the needs of participants and communities and then propose
strategies to address those needs. To do this effectively, keep in mind that
problems/opportunities and their solutions are contextual. In other words, the
characteristics of the setting in which livelihoods are conducted are critical to
understanding the nature of the problems and opportunities and designing
appropriate responses.

The setting of a project refers to the social, political, economic and
environmental factors that can influence the nature of a problem and its
underlying causes. A term commonly used for describing the context or
setting of a design is the operating environment (see definition box 5, next
page). The operating environment is like the stage of a play – it is the context
within which people act out their livelihoods. The setting can be with
reference to a particular geographic area or community. Specific elements of
the operating environment will play a more prominent role depending on the
participants.

To illustrate the importance of the operating environment, consider the
following example. Suppose you are involved in the design of an agroforestry
project in a part of your country where you have not worked before. You
What is an Operating Environment?
The operating environment consists of the characteristics of a setting in which livelihoods are conducted. It includes the elements that define the context for a project and which can have a positive or negative effect on its success. The key elements that make up the operating environment include:

People - demography and human resources: cultural/ethnic groups, their numbers and distribution, relationships, ages, gender, educational levels, occupations, labor pool, etc.

Environment - vegetation, climate, natural resources

Public/private Infrastructure - roads, schools, hospitals, water and sanitation

Beliefs and Practices - religious, cultural, political, social beliefs

Economics - nature and distribution of wealth, assets, income, employment

Institutions - policies, governance, projects, civil society

The actions needed to study and understand the operating environment are not discrete and finite. Rather, they can include a wide range of research and analysis that occur throughout the design process. Depending on circumstances, much of the information about the operating environment may be available through secondary sources. It can also come from the types of diagnostics and assessments discussed in this chapter. During the holistic appraisal, you may discover gaps in knowledge that require further research. What is important is that the knowledge you gain about the operating environment be accurate and comprehensive.

In Annex 2.1 you will find examples of outlines or guides to conducting a thorough analysis of the operating environment for four sectors: small business development, health, agriculture/natural resource management, and education.

2.2 Diagnostics

In Chapter 1 we reviewed the concept of 'strategic directions' that CARE uses for identifying appropriate project opportunities. The design team draws on CARE’s vision and programming principles, and strategic and design frameworks to narrow the project focus and establish a contextual framework for the project design process. Holistic appraisal requires a more in-depth diagnosis to identify the important factors at work in the specific context. Diagnostics are undertaken for the purpose of setting priorities and making decisions about project or program direction and the
allocation of resources. The priorities are based on identified needs.

Here we will focus primarily on diagnostic tools influenced by the Household Livelihood Security approach, including needs assessment, disaggregation and differentiation, stakeholder analysis, institutional assessment and gender analysis. We begin with a brief discussion of participants, the identification of which will result from the use of one or several diagnostic tools. In addition to these methods, there are many other potentially useful tools for exploring the existing reality of a given community. Issues Box 8 provides a brief description of some other commonly used diagnostic tools.

### Issues Box 8

**Examples of diagnostic tools**

*Participatory Rural (or Rapid) Assessment* (PRA) is based on the idea that communities and households are quite capable of analyzing their own constraints and arriving at their own solutions. The external investigator acts as a facilitator to the participatory process.

*Benefits-Harms “profile” tools* offer a practical way to broaden our analytical framework to include all human rights, which, for purposes of simplicity, are divided into three categories: economic and social, political, and security rights.

*Stakeholder Analysis* is a data collection activity that focuses on the identification and concerns of key individuals and institutions that have a direct or indirect interest in the project. It analyzes the social and political interactions of individuals and institutions.

*SWOT Analysis* uses group brainstorming to determine the internal Strengths and Weaknesses, and external Opportunities and Threats (or limitations) of a given project idea. Besides being useful in needs assessment, SWOT analysis is a valuable tool for participatory evaluation.

### 2.2.1 Identifying Participants (Target Population)

Participants are specific populations (e.g., individuals, households, institutions, etc.) that are directly affected by the problem the project seeks to address and stand to benefit and/or change because of project interventions. Often participants are identified according to poverty or livelihood status, or institutional affiliation. Participants can also be identified according to geographical area, such as communities within a forest buffer zone (Table 3). Identifying participants helps the design team to develop project focus and design interventions that facilitate participation by (or the flow of benefits to) a

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10 These can also be referred to as intended beneficiaries. The assumption is being made here that these beneficiaries will actually be enable to participate in project design, implementation, monitoring and evaluation.
specific group. Frequently, participants include vulnerable groups, such as youth, single mothers, unemployed persons, victims of natural disasters, displaced families, and people with low-paying or low-status jobs.

Participants, then, are the individuals, households and institutions that the project will serve, also referred to as target groups, clients, beneficiaries, and primary stakeholders. In conducting an assessment as part of a holistic appraisal, we generally define a ‘study group,’ a collection of individuals and institutions that help us to understand the situation and who may or may not become participants.

It is possible to select participants in a number of ways. Multi-sectoral assessments are well suited to identifying groups vulnerable to constraints in meeting basic needs. In addition to the assessment tools summarized in this chapter, useful approaches to identifying vulnerable groups include rights-based analysis, anthropometric measurements, or vulnerability mapping (see issues box 9 below).

<table>
<thead>
<tr>
<th>Common criteria for selecting participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social</strong></td>
</tr>
<tr>
<td>• Wealth vs. Poverty</td>
</tr>
<tr>
<td>• Vulnerability</td>
</tr>
<tr>
<td>• Age cohorts</td>
</tr>
<tr>
<td>• Gender</td>
</tr>
<tr>
<td>• Life style</td>
</tr>
<tr>
<td>• Livelihood</td>
</tr>
<tr>
<td>• Ethnicity</td>
</tr>
</tbody>
</table>

Participants must be identified in the context of one or more specific problems, since virtually every member of a community is vulnerable to something. Thus, you can investigate who in the community is most vulnerable in relation to access to a nutritious diet, education, health care, shelter or whatever other themes are prioritized in the assessment and direct interventions Accordingly. For example, if your assessment reveals that diarrheal diseases are significant in a community, and that a limited supply of potable water is a contributing factor, you should find out who in the community has insufficient access to clean water. It may prove to be a specific group, such as landless farmers, a particular ethnic group, the poorest economic strata, widows and single mothers -- or it may be defined by a geographic area such an urban neighborhood or a watershed area.

CARE’s guiding principles require that projects must work to benefit poor people. However, it may not always be feasible for the poorest members of a community to directly participate in a particular intervention. To achieve this, interventions may target less vulnerable individuals or households that are likely to participate in and benefit from these interventions. Consider an agricultural project that aims to introduce soil conservation techniques: the poorest farmers in a community may not have the resources (e.g., time,
available land) to risk participating in an intervention to train farmers and establish a demonstration plot. If the new techniques prove successful for those farmers who do participate, however, the poorest farmers may choose to participate as well. In this way, the poorest sector of the community may be identified as indirect project beneficiaries.

Table 3: Examples of Participant Groups

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Participant Group</th>
<th>Inclusion Criteria</th>
<th>Study group</th>
<th>Selection reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffer Zone Management Project</td>
<td>Members of communities living within the buffer zone</td>
<td>Households that use forest resources – to facilitate use of alternative resources, less destructive methods, shared ownership and management, etc.</td>
<td>Members of participating communities, Local authorities, Natural resources authorities</td>
<td>Aware of local needs and patterns of forest use/off-take (felt needs), Responsible for these communities, Responsible for the forest area</td>
</tr>
<tr>
<td>HIV/AIDS Education</td>
<td>Adolescents</td>
<td>Out-of-school adolescents – higher risk of early and unprotected sex, less reliably reached by standard public health education, less likely to have adequate life skills</td>
<td>Unmarried and married out-of-school adolescents in participating communities, Cultural and opinion leaders, especially youth leaders, Local authorities</td>
<td>Aware of local risk behaviors, Influential determiners of beliefs, Responsible for the community</td>
</tr>
</tbody>
</table>

In order to focus project interventions and increase the potential to measure effect and impact changes, it is important to identify target groups of potential project participants as clearly as possible. This can be a difficult task. Boundaries of a population group are often fluid, shifting as people move in and out of geographic areas or organizations. Households themselves may shift their economic status or level of vulnerability due to changes in their resources. Targeting one specific group of participants may lead to the exclusion of others. A thorough holistic appraisal can assist the project design team in collecting information needed to identify and select target groups.

2.2.2 Needs Assessment

A need can be defined as a discrepancy or gap between “what is,” or the present state of affairs of a target group or area, and “what should be,” or a desired state of affairs. A needs assessment seeks to identify the gaps, examine their nature and causes, and suggest priorities for future action. It often highlights key issues or constraints that, along with consideration of programmatic principles and strategic objectives, identify the main problems and opportunities on which the project interventions will focus.

Needs may be categorized in different ways, e.g., by type of person affected, by nature of need, by level or degree of need, etc. Needs of beneficiaries include those of farmers, household members, women, children, etc. Needs
of service providers and policymakers involve people such as teachers, parents, health-care workers, merchants, or government. Needs related to resources refer to things such as infrastructure, technology, programs, working conditions and benefits.

Needs assessment can be an important tool for targeting vulnerable groups within the larger community. By focusing on such subsets of a population, you simplify the causal analysis and are more likely to identify clear causal linkages. In addition, by focusing causal analysis and subsequent project interventions on particularly vulnerable groups, you are most likely to achieve significant and measurable impact.

One caution about using needs assessment: By focusing on the needs or problems of communities and individuals, an unintended yet perverse consequence is the mistaken perception that the identified needs represent the complete "picture" of the community or group. Based solely on a needs perspective, one may conclude that communities, neighborhoods or people are devoid of the capacities to effectively address their needs. What is often lacking is a complementary assessment, which identifies the capacities or assets of people and their community. We need to understand the perceptions of the community about their most pressing needs, but we also must assess the ways in which people can make meaningful contributions to their own development. A methodology that focuses on this approach is called Appreciative Inquiry. (See references in Bibliography annex.)

### 2.2.3 Classifying Needs

The degree to which individuals or communities are in need is based on three distinct definitions of needs: normative, felt, and relative.

**Normative Needs** are based on professional, expert or policy judgment regarding desirable conditions. Normative conceptions are value judgments that change over time as the values, knowledge and practices of society change. To define a normative need, policy statements from experts, usually political or professional, are used. For example, the Ministry of Health in a particular country may state that all individuals should have access to safe drinking water. Once operational definitions of “safe water” and “access” have

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**Definition Box 8**

**Needs Assessment**

A specific data collection activity that focuses on identifying unmet needs of the project participants. Needs are often categorized according to felt, relative and normative. Needs assessment helps identify the problems and causes the project will address, the existing local resources and opportunities for action, and constraints that have prevented the target population from solving their problem.

**Definition Box 9**

**Categories of needs**

**Normative Needs**

Professional, expert, or policy judgment regarding "desirable" conditions based on national or international standards.

**Felt Needs**

Needs based on people's perceptions and attitudes.

**Relative Needs**

Need in one area in comparison to the same need in other communities, locations, or even points in time.
been determined, this standard becomes the norm against which all drinking water is compared. If individuals or communities do not have access to drinking water of that quality, they are considered to be in need.

**Felt Needs** are what people themselves say they need. Often, the most accurate way to demonstrate felt needs is by engaging the population in exploratory processes that reveal more accurately how individuals view their world. Caution must be taken, however, to ensure that the felt needs expressed represent the views of the general population or particular vulnerable group, and not just those of a dominant or vocal group. People’s statements of needs may be limited or inflated by their personal perceptions and experience. Some communities, for example, may be reluctant to admit a need, while others may request a service though it may not address a normative need and would not be used if it were available.

The tools used to gather these data include focus groups, observation, interviewing (key informant, conversational, investigative), community meetings, problem stories, and social dramas or skits. The data generated by these tools are usually narrative and require carefully structured analysis and subsequent confirmation by the population. People are capable of ranking their needs although perceptions may differ according to sub-populations: by gender, age, ethnicity and status.

**Relative Needs** compare a project area with other communities, locations or even other points in time. If individuals or communities with similar characteristics are not receiving the same services, the lesser served is said to be in need. Most often, comparative need is relative to socio-economic status and location, although gender, age, religion, and race can also be important characteristics. For example, if in one region the vast majority of households have flush toilets, those that do not are thought to be in need. On the other hand, people in a poor rural area who do not have piped water systems might not be considered to be in need of flush toilets.

Statistical analyses are commonly used to determine comparative needs. In the health sector, for instance, mortality and morbidity rates are compared to identify groups at higher risk for certain diseases so they can be targeted for specific interventions.

Differentiating between and balancing normative, felt and relative needs can be a delicate task. A case study is included in Annex 2.2 that describes the rationale for and results of a needs assessment conducted in a hypothetical but typical rural community. The material presented illustrates the different classes of needs and the difficulties you may face in resolving differences among these three types of needs.
2.3 Understanding Diversity – Differentiation and Disaggregation

The purpose of differentiation or sub-dividing populations is to reveal and understand variations among individuals, households, communities and institutions. This is a vital process in a holistic appraisal because it helps us identify degrees of vulnerability for particular individuals or groups. Tools for exploring diversity can be applied by community members to identify persons in their community who are the poorest and have the least stable livelihoods. Understanding diversity in this way helps us to both target better and to develop more sustainable interventions appropriate to specific groups. These techniques can allow members of communities to express factors that make households different from one another, and thus help everyone to understand the constraints under which different social classes live.

Differentiation and disaggregation are used to assess variation between and within groups specific to the nature of the problem the project seeks to address. In the case of a project addressing child malnutrition, for example, the team may need to differentiate groups of women and children geographically based on their relative proximity to adequate health care facilities. Note that differentiation techniques are used in design to categorize groups and make determinations about the differences among groups.

Some designers prefer the term ‘disaggregation’ when they use participatory consultation to involve the target group itself in determining the categories of diversity. In the example of wealth categorization, the first step is consulting with community members to identify key local characteristics or criteria of poverty and wealth, which are then used to determine a set of useful categories appropriate to the local context.

Table 4 (below) displays an example of "Wealth Ranking", a means by which programmers can disaggregate a community’s households into categories of very poor, poor, better off, and well to do. Each category is cross-referenced with an indicator such as food, clothing or education to better define each category’s characteristics. Without proper differentiation or disaggregation of data, a program will not be able to maximize its impact on vulnerable households or individuals because of an unclear definition of its target population. (This table is a selection of the ranking criteria developed by the women of Chikhutu, Zambia. See Annex 2.3 for the full set.)

Issues Box 10 shows an alternative to wealth ranking termed "Wealth Categorization.” It is quite similar to wealth ranking, but it simply categorizes a population by poverty. This may be sufficient, especially when what is needed is poverty programming and targeting or understanding the dynamics of wealth and poverty in a particular community.
Table 4: Wealth Ranking example – selection from Livelihood Profiles by Women

<table>
<thead>
<tr>
<th>Criteria for ranking</th>
<th>Wealth categories</th>
<th>Category 1: Very poor</th>
<th>Category 2: Poor</th>
<th>Category 3: Better off</th>
<th>Category 4: Well-to-do</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Livestock</strong></td>
<td></td>
<td>None</td>
<td>Usually have small chicken</td>
<td>One goat</td>
<td>Usually have cattle, goats, pigs, chicks, sheep, pigeons</td>
</tr>
<tr>
<td><strong>House structure</strong></td>
<td></td>
<td>Live in abandoned house No kitchen, toilet or bathroom</td>
<td>House thatched with grass One room to sleep in No kitchen, toilet or bathroom</td>
<td>Houses have kitchen, toilet and bathroom</td>
<td>Roofed with iron sheets Maintained with cement Kitchen, bathroom and toilet</td>
</tr>
<tr>
<td><strong>Possessions (assets)</strong></td>
<td></td>
<td>Have a clay pot A few plates</td>
<td>Have two plates One cooking pot (small)</td>
<td>Two cooking pots At least four mats</td>
<td>Beds for all the family Ox-cart, Buckets, Cupboard, Table, Plates, Bicycle, Household items</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td>Piecework or casual labor, e.g., working on someone else's farm, pounding maize.</td>
<td>Piecework labor similar to first category, but more regular</td>
<td>Look after house, e.g., sweeping and farming</td>
<td>Several workers, and house servant</td>
</tr>
</tbody>
</table>

CARE Zambia, 1999

Issues Box 10

Wealth categorization – an example from Uganda

Wealth is a continuum, but the boundaries of the categories are fuzzy, there are marginal individuals and households, and there is mobility between categories over time. Instead of ranking, categorizing a population by wealth or poverty is sometimes sufficient.

The first step is to discuss with community members and identify some of the key local criteria or characteristics of poverty and wealth. It is important to try to avoid derogatory classifications, instead choosing terms that are broadly acceptable. For example, one community in Uganda agreed on a four-fold classification of:

1. "Those who can manage", a euphemism for the relatively wealthy who could look after their own interests without help from anybody;
2. "Those who have something", i.e., had some small assets, such as a few animals, some equipment, and an opportunity of developing;
3. "Those who earn slowly", i.e., they had no real capital assets, but struggled on a daily basis to make ends meet; and
4. "Those who cannot manage" (the opposite of the first group), persons who were destitute and therefore required external support to survive.

The general characteristics of each social group could then be explored and described. Broad approximation can be made of the relative proportions of these, either by observation or social mapping. Further insights can be obtained by individual household analysis, biographies, key informants, or identifying households with serious problems, e.g., food shortage, lost all their animals.

Adapted from: IIDS 1995
2.4 Stakeholder Analysis

At an early stage in holistic appraisal, the design team needs to identify those entities—local and national government, CBOs (Community-Based Organizations), utility organizations, national and international NGOs (Non-Governmental Organizations, including CARE), research institutions, private sector (small and large), donor(s), the target group itself—that may have something to gain or lose from the project. These entities are defined as stakeholders: individuals or institutions with interests in the process and outcomes of CARE-supported activities and the ability to significantly affect a project, positively or negatively. Stakeholders may be partners, recipients of project resources, or organizations that have a vested interest in the outcome of the project (e.g., donors, local government, etc.)

It is important to identify and understand the relationship between stakeholders and the proposed project. Some stakeholders will benefit more than others; key individuals (perhaps representatives of an organization) may have personal interests at stake. Stakeholder analysis thus aims to identify: who are the entities with potential interests in the problem the project seeks to address, what their interests and roles might be, and how to incorporate strategies into the project design to mitigate conflict or turn potential situations of conflict into opportunities for collaboration. Looking for opportunities to build constituencies for what CARE does can create the weave that enables services to be provided in appropriate ways within communities.

There are four main steps to conducting a stakeholder analysis:11

- Identify principal stakeholders.
- Investigate their interests, roles, relative power and capacity to participate.
- Identify relationships between stakeholders, noting potential for cooperation or conflict.
- Interpret the findings of the analysis and determine how this will affect project design and success.

Three sample matrix formats that can be used to help structure a stakeholder analysis are presented in the tables below. Table 5 can be used to present a summary profile of stakeholders, their interests and roles relative to project focus, and relationships with other stakeholders.

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11 For further discussion of Stakeholder Analysis refer to: Reitbergen-McCracken and Narayan 1997; IDRC 1998; AusAID 2000.
Table 5: Stakeholder Analysis Profile Matrix

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Interests in the project</th>
<th>Effect of project on interest(s)</th>
<th>Capacity/motivation to participate</th>
<th>Relationship with other stakeholders (partnership or conflict)?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key stakeholders can significantly influence or are important to the success of a project. Influence refers to the degree to which a stakeholder has power over the project and can therefore facilitate or hinder project interventions. Importance refers to the degree to which achievement of project goals depends upon the involvement of a given stakeholder. A simple matrix such as the one presented in Table 6 can be useful to assess the relative influence and importance of stakeholder groups. (Place the name of the stakeholder group in the appropriate cell, depending on its influence on and importance to the project.)

Table 6: Relative Influence and Importance of Key Stakeholders

<table>
<thead>
<tr>
<th>Influence of Stakeholder</th>
<th>Importance of Stakeholder to Project Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unknown</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>Highly Influential</td>
<td></td>
</tr>
</tbody>
</table>

When considering a stakeholder’s capacity or motivation to participate in or otherwise influence the success of a project, it can be useful to develop a matrix to identify various stakeholders according to the level of their involvement and the stage of the project cycle during which they would most likely participate (Table 7).

Table 7: Stakeholder Analysis Participation Matrix

<table>
<thead>
<tr>
<th>Stage in Project Planning</th>
<th>Type of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inform (one-way flow)</td>
</tr>
<tr>
<td>Diagnostic Assessment</td>
<td></td>
</tr>
<tr>
<td>Project Design</td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
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<tr>
<td>Monitoring</td>
<td></td>
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<tr>
<td>Evaluation</td>
<td></td>
</tr>
</tbody>
</table>
These tables also fit with an RBA orientation, in which stakeholder analysis involves identifying responsibilities that various duty bearers have vis-à-vis the rights of target beneficiaries. In Table 5, for example, key stakeholders with a high degree of influence and importance to project success are potential project partners. Stakeholders with a high degree of influence, but a limited role relative to project achievement, may be involved through periodic consultations.

Early in the design stage for a child malnutrition project, for example, the design team may anticipate forming partnerships with the Ministries of Health and Agriculture. As the team identifies specific project interventions (see Chapter 4), however, the team may determine to focus on a health intervention, thus forming a partnership only with the Ministry of Health, yet continuing to inform the Ministry of Agriculture through periodic project updates.

These simple matrix formats can be adapted to include different or additional information about the main stakeholders. The design team should review and update the stakeholder analysis throughout project planning, as the scope of the project becomes more focused and new information becomes relevant to the planning process.

### 2.5 Institutional Assessment

Institutional assessment focuses on an analysis of internal and external capacities (human, financial and material) to implement specific activities and absorb inputs such as training. It is complementary to stakeholder analysis, differing in that it focuses more specifically on the capacity of potential institutional partners – including CARE – to collaborate in project implementation, and possible roles and responsibilities of other collaborating agencies. For example, during a holistic appraisal of issues surrounding child malnutrition, the design team identifies the local health department as a key stakeholder and potential project partner. Therefore, the team elects to conduct a thorough assessment of the department to identify particular assets of the agency, or institutional capacities that may need strengthening to ensure project achievement. In this example, the assessment was part of a holistic appraisal, but in practice, an institutional assessment may be more practical once the project strategy becomes...
defined, so that it is clear which institutions need to be considered.

**Illustrative Tools and Methods for Institutional Analysis**

1) **Partnership analysis:** How are CARE and its potential partners compatible in terms of vision, values, mission and capacity? What is the common ground? Where are the areas of divergence? What is the nature of the relationship? What are the possibilities for enhancing the relationship? What are the constraints to making the relationship productive for partners? (See Issues Box 11 for a discussion of partnering in CARE, and Issues Box 12 for examples.)
2) Force Field Analysis: How do institutions support program objectives? How do they represent a resisting factor or barrier to change? What is the susceptibility to change the institution? What is the potency of the institution for influencing positive change?

Table 8: Force Field Analysis (Example of a tool)

<table>
<thead>
<tr>
<th>VISION (Describe desired vision here):</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRIVING FORCES (fill in driving forces)</td>
</tr>
<tr>
<td>➔</td>
</tr>
</tbody>
</table>

To achieve change towards a goal or vision three steps are required:
- First, an organization has to unfreeze the driving and restraining forces that hold it in a state of quasi-equilibrium.
• Second, an imbalance is introduced to the forces to enable the change to take place. This can be achieved by increasing the drivers, reducing the restraints or both.
• Third, once the change is completed the forces are brought back into quasi-equilibrium and refrozen.

3) Trends analysis and historical timelines: Who are the key groups or institutions that have influenced the issues/problems or opportunities) over time? What are their relationships with the target population, and how have they changed over time?

4) Institutional Mapping: Who are the organizations involved in addressing key issues and problems? What do they do? Where do they work? How do they interact with the target population? Where are the overlaps? Where are the gaps? What are the strengths and weaknesses of the institutions? What are the organizational profiles/typologies?

5) Venn diagrams: How do program participants/target groups interact with organizations and institutions? How do the organizations work together? Identify subsets of organizations. What is the relative importance of these associations? How are these associations linked? What is their value and importance to the target population and their livelihoods? What is the level of access? What are the constraints to access and participation?

**Definition Box 14**

**Force field analysis**

Force field analysis is used in change management to help understand most change processes in organizations. In force field analysis, change is characterized as a state of imbalance between driving forces (e.g., new personnel, changing markets, new technology) and restraining forces (e.g., individuals’ fear of failure, organizational inertia).

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**Institutional Assessment: A Rights-Based Approach**

To broaden our assessment of institutions and their relations to rights realization, we need to assess and consider what other actors are doing, at different levels, in relation to conditions on the ground. The HLS assessment process includes an institutional mapping component, which focuses on mapping the activities and long-range plans of other institutions working in the area in order to determine CARE’s role/comparative advantage. Under RBA, institutional mapping would be expanded to include a broader range of responsible actors (covering the wider spectrum of rights issues) and to identify how such actors advance or impede rights realization for the target population. The assessment would also need to include a component that helps us understand local perceptions of the legitimacy and/or value of these institutions. The institutional assessment process will become critical as RBA inherently calls for working in coalitions, networks, etc. and for engaging in advocacy vis-à-vis key responsible actors.
2.6 Gender Analysis

Gender analysis focuses on identifying and understanding different gender roles, rights and responsibilities. It seeks to better understand women’s needs and roles in relation to men’s, and to their social, cultural, political and economic context, acknowledging that neither women nor men are homogenous groups. Gender analysis considers the roles, rights, and responsibilities of both men and women in all aspects of their lives, e.g., production, reproduction, management of household and community activities, and access to community resources. In project design, gender analysis helps us to 1) identify gender-based differences in access to resources to determine how different members of households will participate in and be affected by project interventions, 2) incorporate gender equity and empowerment into the project design process and subsequent goals and interventions.

Because gender planning is part of the overall project design process, the composition of the planning team, the timing and approach of the holistic appraisal, and the integration of gender concerns into the identification of causal linkages, the development of project goals and interventions, and monitoring and evaluation are all critical to project achievement.

Each of the diagnostics described in this chapter can be useful in conducting a gender analysis. Needs assessment, for example, can be used to understand how the needs of women differ from those of men. Table 4 (page 35) earlier in this chapter shows how wealth ranking can be used by village women’s groups to disaggregate households. Issues Box 14 summarizes two additional tools useful in gender analysis, resource access assessment and activities profile. Gender analysis techniques can be used as group activities involving both women and men. For women to feel comfortable
expressing themselves openly, in many design contexts it will be preferable—or perhaps even necessary—for men and women to meet separately.

2.7 Breadth versus Depth

Holistic appraisal is an exploratory phase of project design. Also called diagnostic assessment, it is a process often undertaken during initial design activities. Its primary purpose is to understand the range of constraints, needs, problems, opportunities, etc. that are present in a defined group or area. Our initial work, then, in the holistic appraisal stage, is to gain a general understanding of individuals, households and communities. In the diagram below (figure 6), the horizontal line labeled ‘breadth’ illustrates this initial work.

Figure 6: Breadth versus Depth of Diagnosis and Design

Diagnostics  
(problem identification)

Diagnostic work explores the breadth of problems and opportunities and looks for synergistic relationships.

Design  
(analyses)

In project design, we are exploring the depth of causal relationships using identified problems and target groups.

Later in the design process, we will focus in on a narrower range of issues and seek to understand these issues in much more depth. There is rarely enough understanding of an issue after one round of assessment to design a good project. It is usually necessary to focus in on a sub-set of issues, and then conduct more research (i.e., secondary literature reviews, further assessment work) to gain a fuller understanding of the livelihood and rights issues.
2.8 Sequencing of Activities

A successful holistic appraisal relies upon the ability of the project design team to choose and adapt existing tools (or develop new ones) that are most appropriate to the particular context of the project design. The methods described above comprise a number of techniques designed to collect, understand and exchange information. A brief description of these and other tools and terminology used in holistic appraisal is presented in Annex 2.4.

In conducting a holistic appraisal, the exact sequencing of assessment and diagnosis will vary depending on the objectives of the analysis and information requirements. The sequence of a full-blown HLS Assessment, presented below in Issues Box 15, can provide guidance for a project design team. Remember, it may not be cost-effective to conduct such a thorough, holistic diagnosis assessment for a single project. However, it is recommended for determining the strategic directions of a long-term, comprehensive area program. This information can be subsequently used to guide the design of a number of projects focused on specific problems faced by communities in that area.

An example of a sequenced approach for participatory livelihood assessments in Malawi is displayed in Table 9 on page 46.

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12 These are laid out in much greater detail in several other resources. See: Frankenberger and McCaston 1999; Maxwell and Rutahakana 1997; and Pareja 1997.
Steps of a full-blown Household Livelihood Security Assessment

- **Objective setting** Clear objectives are fundamental to keeping the entire diagnosis process on track.

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

- **Identification of major issues for field data collection** Where there are gaps in existing information, tools for gathering this information have to be designed.

- **Stakeholder validation of conclusions from secondary information and gaps** Prior to investing time and resources in field data collection, experience shows it is useful to validate preliminary conclusions emerging from the secondary information. Stakeholders to contact include representatives of communities where activities may take place, members of partner organizations that may be involved in diagnosis, design and implementation, local authorities, and other organizations or research institutes that may have experience or information.

- **Site selection** Locations for field data collection must reasonably represent locations where programs will be implemented, but can rarely be statistically representative due to resource restrictions. Therefore, careful thought must go into purposive selection of sites, and the number of sites must be adequate to capture the breadth of variation in livelihood systems, constraints and sources of vulnerability.

- **Community preparation** The quality of information gathered is only as good as the quality of response from groups participating in the information collection, so good communication with communities is the sites selected is critical. Likewise, it is important to inform communities that projects or “aid” may not necessarily follow immediately (or ever).

- **Field team training** Often field teams include staff from partner organizations or local government, representing multi-disciplinary viewpoints and expertise. Incorporating HLS concepts and rigorous field methods into a mixed team is a challenge that needs to be allocated adequate amounts of time. This is also a good time for pretesting tools/methods.

- **Field data collection/entry/analysis iteration** Capturing information, organizing it and making it retrievable (and backed up!), and beginning to synthesize findings, is all part of fieldwork. In general, at least a day for these activities is required for every day of actual information collection, and is best built into an iterative process, rather than lumping information collection and entry/analysis into separate activities and timeframes.

- **Analysis and design workshops** Refinement and synthesis of information, identification of problems and causal linkages, and selection of strategically focused interventions, usually occur in design workshops that follow the field exercise. (These stages of the project design process will be covered in detail in Chapters 3 and 4 of this Handbook.) Often times, multiple stakeholders including community representatives are involved in this process. Once a set of intervention themes has been identified, these are subjected to a series of analyses to determine the key leverage points for follow-up project design. These selected themes are reviewed with the community to determine if they are valid community priorities.
# Table 9: Example - Methods Used And Key Information Collected in Malawi

<table>
<thead>
<tr>
<th>Level of Analysis</th>
<th>Methods</th>
<th>Key Information Collected</th>
</tr>
</thead>
</table>
| Community level environmental and economic analysis | i) Resource mapping and focus group discussions around resource map  
ii) Historical time line  
iii) Seasonality calendars  
iv) Venn diagramming  
v) Matrix ranking | • Infrastructure, key services, land use, farming systems, land tenure, natural resource base, availability, access, quality, and historical changes.  
• Historical analysis, changes over time, trends, past efforts.  
• Seasonal farming activities, income, expenditure, stress periods, coping and adaptive strategies.  
• Institutional identification, operation, interaction, level of service, performance.  
• Economic activities, priorities, performance, trends, gender. |
| Household level social analysis                   | i) Identification of livelihood indicators  
ii) Identification of livelihood categories  
iii) Livelihood category profiles  
iv) Social mapping  
v) Case study and household interviews | • Economic, social, and environmental criteria used for classifying households by wellbeing.  
• Difference by gender.  
• Location and names of households  
• Proportional livelihood status  
• Vulnerability, shocks, stress, coping and adaptive behavior.  
• Potential opportunities.  
• Validation. |
| Problem prioritization, analysis and opportunity identification (synthesis) | i) Problem identification analysis.  
ii) Cause - effect analysis  
iii) Opportunity analysis | • Prioritized problems by gender.  
• Problem linkages, causes and effects.  
• Previous efforts, successes, failures.  
• Roles and responsibilities.  
• Potential opportunities and strategies. |

# Chapter 2 Review: Holistic Appraisal

<table>
<thead>
<tr>
<th>Key concepts</th>
<th>Focus questions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Establishing the operating environment for your project design</td>
<td>• Have you considered the context in which your project will be set?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What factors will be important to assess in the holistic appraisal stage?</td>
<td></td>
</tr>
<tr>
<td>2.2 Diagnostic tools for holistic appraisal</td>
<td>• Following your review of available secondary data, what diagnostic tools will be most appropriate to holistic appraisal?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Have you clearly defined the project target group?</td>
<td></td>
</tr>
<tr>
<td>2.2.2 Needs Assessment</td>
<td>• Have you determined which tools will provide you with the information you need to understand:</td>
<td></td>
</tr>
<tr>
<td>2.3 Understanding Diversity (Differentiation/Disaggregation)</td>
<td>– The &quot;needs&quot; of the target group;</td>
<td></td>
</tr>
<tr>
<td>2.4 Stakeholder analysis</td>
<td>– Appropriate categories for disaggregating information;</td>
<td></td>
</tr>
<tr>
<td>2.5 Institutional assessment</td>
<td>– The relative importance and influence of various stakeholders;</td>
<td></td>
</tr>
<tr>
<td>2.6 Gender analysis</td>
<td>– Opportunities for collaboration or potential for conflict with stakeholders;</td>
<td></td>
</tr>
<tr>
<td>2.7 Breadth vs. Depth</td>
<td>– Institutional capacities of partners or target groups;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Gender-based differences affecting project interventions?</td>
<td></td>
</tr>
<tr>
<td>2.8 Sequencing activities for holistic appraisal</td>
<td>• Have you developed a logical sequence for the assessment, based on the objectives of the analysis?</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3 provides guidance on synthesis techniques used to organize information collected during the holistic appraisal. Here we define Causal Analysis and discuss methods for applying Causal Analysis in project design.
Chapter 3: Analysis and Synthesis

The analysis and synthesis stage of project design is used for organizing information collected during the holistic diagnostic assessment stage and extracting meaning from this information. We often have more information than we can reasonably assimilate using summary techniques. Therefore, we need tools to help us to organize information.

The holistic appraisal stage of design identified a set of constraints (we can also refer to these as problems or needs) of varying complexity and importance relative to a defined geographical area and population. Developing a strategy to eliminate constraints of realized possibilities requires an in-depth knowledge about the underlying causal factors that lead to an analysis of the problem. One of the tools we have for exploring causal relationships is called Cause-and-Effect Analysis, and it is a commonly used tool in project design. You may also hear it referred to as simply Causal Analysis or Problem Analysis or Logic Modeling.

Causal Analysis is based on cause-effect relationships. Cause and effect has its roots in the physical sciences. Laws of physics, for example, dictate that nothing happens by accident, that something causes something else to happen, and that what happens in the beginning determines what happens at a later point in time. These notions of cause-effect are periodically challenged in the social sciences. In other fields, researchers can establish cause-effect relationships (or at least strong correlative relationships) using statistical probability -- for example, that smoking is a major causal factor in a high percentage of lung cancer cases, or that hydrocarbon emissions from automobiles are a causal factor of airborne particulates that result in smog in major cities. When working with social systems, as we do in the development field, we often do not have the luxury of clear statistical rigor. Nevertheless, causal analysis based on cause-effect relationships is still one of the best tools we have for systematically exploring events or factors that lead to a problem or opportunity.

In design, Causal Analysis normally does not refer to rigorous methods of mathematical causal path analysis but, rather, consists largely of qualitative procedures. A logical cause-effect stream is established which illustrates, to the best of our ability, the relationships among behaviors, conditions, and problems. In this way, Causal Analysis is used to discover factors that lead to constraints and to bring project designers closer to the real needs of target populations.

Definition Box 15

Causal Analysis

Causal Analysis is a systematic process used to determine causes and consequences of a problem and to link them based on cause effect relationships.
3.1 Systems Perspective

Needs do not exist in a vacuum. Needs are contextual, which is why we start the design process by conducting a holistic appraisal and exploring, for example, the Operating Environment. Needs exist within systems, whether educational, social, political, familial, governmental, or business. Thus, anything that affects one part of the system also interacts with other parts of the system. The CA that we do for project design reflects this systems thinking, and the livelihood framework used in our holistic appraisal promotes a systems perspective by looking at needs across multiple sectors. Issues Box 16 summarizes the strengths and limitations of the Causal Analysis tool applied to project design.

### Issues Box 16

**Causal Analysis Tools**

**What the tools do well...**
- Improves our analysis of constraints and causal linkages, at both the program and project levels.
- Advances the interaction among practitioners in the analysis of constraints.
- Provides a starting point to select appropriate effect and impact level indicators.
- When done at the program level, provides us with a base to develop further assessment for project design.
- Facilitates data analysis from exploratory assessment.

**What needs more understanding...**
- Analysis of cross-causal linkages.
- Relative contribution of different causal streams.
- Linkage/complementarity/use with capacities and opportunities, prioritizing leverage points for influencing sustainable change.

### 3.1.1 The Pareto Principle

Another concept we need to keep in mind as we explore causal analysis is called the Pareto Principle, which states that only a few causal streams that lead to a problem are responsible for the bulk of the problem (Juran and Gryna, 1988). You often hear statements like “90% of repeated violent crimes are caused by 5% of the population,” or “80% of the yield reduction is caused by two major plant pests.” This principle is well established in fields such as manufacturing and assembly, administrative and support services, and marketing. It is also relevant to development and social systems, and reminds us to assure that the most critical pathways are identified during design. See example below from agriculture (Issues Box 17).

### Definition Box 16

**Causal Streams**

A sequence of conditions or factors, linked by cause-effect logic, that contributes to a pre-defined problem. Can also be referred to as cause-effect linkages.
3.2 Logic of Cause and Effect

Causal analysis helps organize the many concerns and needs identified in a community into a logical hierarchy of cause-and-effect relationships. However, what exactly do cause and effect mean? Consider a particular “problem” you have encountered (say, dangerous driving conditions on city streets), and then ask yourself, what are the most influential factors that most directly lead to that problem. Likely answers might include too many vehicles, roads in poor condition, or a lack of streetlights and other safety features. These are the ’causes’ leading to the problem of dangerous driving conditions.

Each cause identified above is in turn the “effect” portion of another cause-and-effect relationship. For example, what might lead to the condition “too many vehicles,” which was identified as a direct cause of the problem? A logical answer (i.e., the cause in this cause-effect relationship) would be a lack of public transit. This condition – a lack of public transit – is in turn the effect of specific causes, which may in turn be the effects of other causes. The result is a sequence or stream of conditions or factors that lead to the core problem. Figure 7 offers two sample causal streams that further illustrate this cause-effect logic for high HIV infection rates and decreasing family farm incomes. For some people, developing (or following) a pathway of events is quite difficult. This may be a result of inexperience with relational thinking beyond a one-step process. It may also happen because the causes of many problems are quite complex and require more than a singular, linear causal stream to adequately analyze them.

### Figure 7: Two Causal Stream Examples

<table>
<thead>
<tr>
<th>High rates of HIV/AIDS Infection</th>
<th>Problem Low Farm Family Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange of bodily fluid (implied condition)</td>
<td>Cause Declining Crop Yields</td>
</tr>
<tr>
<td>People engage in unsafe sex practices</td>
<td>Cause Severe Soil Erosion</td>
</tr>
<tr>
<td>Condom use is limited</td>
<td>Cause Farmers use improper plowing techniques</td>
</tr>
<tr>
<td>People think that condom use is sacrilegious</td>
<td>Cause Farmers unaware of benefits of contour plowing</td>
</tr>
<tr>
<td>Condom use has negative cultural connotations</td>
<td>Cause No access to extension services or information</td>
</tr>
</tbody>
</table>

Causal analysis example using the Pareto Principle in the agriculture sector

In Country X, the problem of decreasing farm family income was investigated through the use of a survey of 100 households. 65 households mentioned the primary cause as the lack of resources (access to land, irrigation, inputs) to support production, 20 households mentioned lack of access to markets to sell their goods, and 15 identified their lack of knowledge of improved farming practices as the primary cause of a decreasing farm family income.
3.3 Using Cause and Effect Logic in Project Design

The first step in developing a causal analysis in project design is to identify the problem that the project will address. The objective here is to use cause-and-effect logic relative to a pre-defined problem, since the causal logic is always relative to a particular problem, which leads to other effects, also termed consequences. If you change the core problem, then the causal analysis will also change. Of course, local social, political and economic conditions will partly determine the identification of the project’s focus, however other factors will also influence it.

Problems are selected based primarily on such criteria as:

- The degree to which resolution of the problem (or seizing of the opportunity) will result in a fundamental change in the lives of the target group;
- The significance and scope of the problem (i.e., the degree to which society considers it a serious problem and the number of people it impacts);
- The identification by the affected community that this is a priority problem;
- The organization’s programming principles;
- The organization’s comparative advantage (ability to address the problem);
- The interests of donors and the opportunity for resources.

The process of defining the problem in the project design phase in most cases will begin at a very general level. For instance, a holistic appraisal is often conducted with the rather generic “problem” of low livelihood security in mind, and data is collected around basic needs, access to resources, and other factors associated with livelihood security. An initial cause-effect analysis can be conducted with the problem defined as low livelihood security and the result will be an understanding of the major causes of low livelihood security. As mentioned above, these major causes are often too broad for a single project, and are themselves the effects of other underlying causes. The project design team will need to clarify these underlying causes before going further in the project design process, as the suitable focus for a project is more likely to be found at this level in the causal stream. Thus, causal analysis should be an iterative and on-going process through the life of the project to continuously ensure proper project focus.

Causal analysis is a fundamental tool for building the central logic of any project design. The primary reason for carrying out a causal analysis is to develop a hierarchical relationship between causes and effects identified.
through the holistic appraisal. Causal analysis allows us to assess the relative contributions of causal streams to the problem and therefore select factors to address through project interventions. Other reasons to use causal analysis in project design include:

- Selection of appropriate effect and impact indicators;
- Exploration of multiple causal interactions (synergy);
- Mobilizing “buy-in” to a project design for staff, partners, community participants, donors, etc.

### 3.4 Hierarchical Causal Analysis

Causal Analysis describes a set of complex relationships among system variables in a hierarchical manner. In most cases, the sequence of causes in a causal stream fall in the following hierarchy:

- The direct causes of the problem are often specific physical or social conditions;
- These conditions, in turn, are typically ‘caused’ by human behaviors or by systemic shortcomings;
- Systemic shortcomings might be caused by low institutional capacities, or underlying power dynamics (e.g., duty bearers who have control);
- Human behavior is determined primarily by people’s knowledge, attitudes and beliefs (although there can be conditions that themselves influence behavior); and
- People’s knowledge, attitudes and beliefs have their roots in the context or the environment in which the target area is found.

Figure 8 illustrates the causal hierarchy. Note that this is generic and illustrative only. Most causal analyses are much more detailed, and thus more complex. The figure, though, illustrates the primary relationships found in hierarchical causal analysis. There are specific reasons in project design that we model our cause-effect logic using a hierarchical analysis, as we will see later in this chapter.

The higher-level consequences of a problem in the hierarchy are the result of the problem, and are based on the same cause-effect logic as the conditions and other causes. If a project makes a significant contribution towards resolving the problem that it addressed then the consequences will themselves change.

Conditions are identified as direct causes of the problem, and frequently exist because of certain human behaviors or gaps in necessary systems. For example, the condition whereby water is contaminated by human waste could be caused either by a negative human behavior such as failure to use...
latrines, or by a system shortcoming such as a lack of a municipal sewage treatment facility.

Human behavior is based primarily on our knowledge, beliefs and attitudes. As human behavior often contradicts them, we must be careful to distinguish between stated and implicit beliefs. Thus, the next level of cause in the causal analysis hierarchy describes what is causing the targeted human behavior. The findings may show reluctance of nursing mothers in a specific community to eat foods high in protein – a gender-linked behavior usually based on cultural beliefs, gender roles and rights, and perhaps a lack of knowledge of good nutrition.

Finally, you should examine the external environment for basic factors that influence or lead directly to causes at each level in the hierarchy. For instance, a dominant religion can be a factor in the cultural environment that leads to specific beliefs or attitudes. Government policies or the availability of resources can cause shortcomings in certain basic services or systems. Project design must take these factors into account.

Recognize that behavior (and attitudes and beliefs) also applies to duty bearers, persons in power who have influence over institutions and systemic structures. These have a great deal of influence over the fulfillment of people’s rights. Whether constraints at these levels should be addressed specifically by projects or broader program strategies, they should not be ignored, for often the underlying causes of problems (denial of rights) can be traced to these sources.
In Chapter 3 - Analysis & Synthesis

3.4.1 Phrasing Problems, Causes and Consequences

There are a few simple rules for the proper phrasing of problem, cause and consequence statements. To write the problem statement, first determine the condition the project is intended to address. This is the “what” of the problem statement. Next, identify the population affected by the condition. This is the “who” of the problem statement and is sometimes referred to as the target population. Finally, state the area or location of the population. This describes “where” the problem occurs. The following are examples of problem statements.

- High mortality in children under five living in Jalapa District.
- Dehydration in children living in Western Nepal.
- Low nutritional status of small farm households in Dangriga.
- Low income for small-business women living in peri-urban areas of Guatemala.

Issues Box 18

Incorporating a Rights-Based Approach into synthesis techniques

Holistic appraisal sets the stage for synthesis leading to program design. Put simply, a rights-based approach focuses us on those most severely affected by discrimination, exploitation, and neglect, on the inter-related roots of their predicaments, and on how different actors are or are not living up to their responsibilities for addressing human suffering and poverty.

Targeting the key leverage points or factors which, if not addressed, will impede significant, lasting impact. A core principle of a rights-based approach is the focus on the roots of poverty. Addressing underlying or basic causes means going beyond addressing immediate causes of livelihood insecurity. For example, instead of solely working to improve farm production, CARE may need to promote pro-poor agricultural policies. To some extent, addressing basic causes of livelihood insecurity implies addressing areas that previously fell into the “assumptions” column in program design, particularly the policy dimensions of poverty’s roots. These assumptions have sometimes been viewed as out of CARE’s control or too political in nature. However, with a rights-based approach, no fundamental causes or “drivers” of livelihood insecurity should automatically be “assumed away” as too political, sensitive, or complex for CARE. In fact, if our analysis shows that a certain cause is a critical leverage point, we should carefully assess opportunities for and potential risks of addressing it at different levels. We should not necessarily take direct action. In some cases, we should assume a purely indirect and discreet role of mobilizing or facilitating action by those who have stronger mandates and/or greater resources to address the situation.

The causal-responsibility analysis tool developed by CARE’s Human Rights Office is one simplified methodology for framing and stimulating analysis of root causes and responsible actors, setting the stage for the development of coalitions and focused intervention strategies. Jones 2001
The causes and consequences are phrased in a similar fashion. First, identify the subject or the “who” of the sentence. Then, state the verb(s) of the sentence. Finally, state the objects of the verb (examples 1 to 4 below) or the subjective completions (examples 5-8 below). The following are samples of properly written causes and consequences.

1) Children have frequent diarrhea.
2) Mothers do not wash hands.
3) Farmers cut trees.
4) Families pay for funerals.
5) People are uneducated.
6) People have no power to influence decisions that affect their community.
7) Farm families cannot own their own land.
8) Community-based irrigation committees are not functioning.

A word of caution: There is an unfortunate tendency to use phrases such as “lack of education or knowledge” for causes. Stating problems as a lack of something presupposes the solutions. In other words, you assume that the lack of education is the cause when in fact education may be one of several possible solutions. To help you improve your ability to detect differences among problem-cause and consequence statements, practice exercises are included in Annex 3.1.

### 3.4.2 “Positive“ Approaches to Analysis

New approaches are being developed by some designers in response to what they perceive as the ‘negativist’ connotations of the ‘problem-based approach’ to project design. Their premise is that a problem-based approach...
focused on seeking problems and their solutions is unhelpful for two main reasons. First, the spirit of partnership can be damaged when the development agent pays attention primarily to what a community lacks. In addition, the problem-based approach may not pay adequate homage to opportunities or assets locally available in the form of skills, capacities and human resources. There are approaches that take a more positive point of view, and it is valuable to be aware of some of the new terminology and tools being promoted (see Issues Box 19).

3.5 Methods of Causal Analysis

As we saw in Chapter 2, there are many tools that project design teams can use during the holistic diagnostic assessment stage to collect information relative to the project focus area or problem. Synthesis techniques can be used to organize this information to determine cause-and-effect relationships and establish priorities for project interventions. There are many methods available for conducting a causal analysis. We will focus primarily on the use of causal trees, but it is worth mentioning some of the other techniques here, because any one of the techniques can be used.

**Group Brainstorm/Consensus**

The simplest form of analysis is for a group to brainstorm possible causes, discuss them, and then prioritize. This can be done with any size of group but works best when guided using good facilitation techniques. It is often more useful, however, to use more structured methods which capitalize both on the experience of team members and on the visual representation of the “system” aspects of the causal analysis.

**Fishboning**

Fishboning is an easy and effective tool for exploring causes of identified problems. The fishbone can be useful with a relatively small number of causes. Figure 9 is a basic fishbone diagram, with the head of the fish at the right and the ribs extending to the left. The problem (or opportunity) statement is written on the head. Categories or labels can be placed on the ribs, which help identify and categorize potential types of causes that lead to the head.

Fishboning is useful as an exploratory method, especially during assessments that seek to identify a number of constraints. The method is also a useful participatory tool because the process of diagramming facilitates group involvement. Fishboning does not, however, help clarify the sequencing or hierarchy of causes, a point we will see is important to project design. Nor does the method provide us with much insight on the relative contribution of each of the causal streams. Consequences are often left out of the diagram. One other limitation is that this structuring of the diagram assumes only problem enhancing (negatively contributing) streams, and does not portray forces that oppose these streams (positively contributing to solutions). For example, while the present diagram can show risk contributing behaviours, like non-use of condoms, poverty and pressure for
commercial sex, there is no way to show cultural beliefs and behaviours that contribute to delaying the age of first sex in adolescents, and thereby decrease their risk of HIV transmission.

Figure 9: Example of the Fishbone Method of Diagramming Problems

<table>
<thead>
<tr>
<th>Economic factors</th>
<th>Nutritional issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>High unemployment</td>
<td>Diet low in vitamins</td>
</tr>
<tr>
<td>Low agric. productivity</td>
<td>Chronic malnutrition</td>
</tr>
<tr>
<td>No healthcare facilities</td>
<td>Adults eat best foods</td>
</tr>
<tr>
<td>Unclean water supply</td>
<td>High birth rate</td>
</tr>
<tr>
<td>Many single mothers</td>
<td>High child mortality</td>
</tr>
</tbody>
</table>


Cause and Consequence Analysis

Another convenient method for exploring problems is called Cause and Consequence Analysis. It is designed to aid in uncovering both causes and consequences (effects) of phenomena in order to determine factors that contribute to the present situation and the future. It is a form of risk assessment and works best with small groups and key informants. It is visually represented in matrix form. One important output of the process is a priority ranking of problems based on severity of causes and consequences. The general format for this analysis is illustrated below in Table 10.

Table 10: General Format for Cause and Consequence Analysis

<table>
<thead>
<tr>
<th>Problem/Need</th>
<th>Causes</th>
<th>Consequences</th>
<th>Difficulty to correct - low, medium, high</th>
<th>Criticality - 1 2 3 4 5</th>
</tr>
</thead>
</table>

From: Witkin and Altschuld 1995. To arrive at the final two columns in the format, each participant makes individual judgments using rating sheets with numbers keyed to the problems on a master chart. One of the major uses of this type of analysis is to set priorities for addressing problems. In this sense, it may be more useful for strategic or program planning and not project design, where the problem has already been defined.

Nevertheless, groups generally like using this type of analysis and it is simple to learn and apply. Each problem will have more than one cause, and a
given cause may be related to more than one problem (which starts to show the interaction among causal factors, but still not very efficiently).

**Causal Trees**

A recommended method to consider is Causal Trees. Other terms for this method include Fault Tree Analysis, Causal Analysis, and Problem Trees or Diagrams. Causal Trees represent a systems approach to analyzing cause and effect, and in this light, they are extremely useful for project design. It is the most complex of the three methods we have discussed, as well as the most powerful. It is a useful tool for synthesizing the information collected during the holistic diagnostic assessment stage because it helps us to identify multiple causal linkages. The hierarchical causal analysis technique discussed earlier (Section 3.4) outlined the basic structure for the development of Causal Trees.

The sample Causal Tree presented in Figure 10 addresses the problem of high child malnutrition. Relating the diagram to the Hierarchical Causal Tree presented earlier (Figure 8), we see that the direct consequences of the problem are identified as high child mortality, abnormal physical and mental child development, and high health care costs incurred by households. Thus, the identified problem is also a cause of higher-level consequences.

Recall that conditions are identified as direct causes of the problem. In our example here, the conditions are the inadequate quantity of food provided to children, the poor nutritional quality of that food, and high incidence of infectious diseases.
Figure 10: Example of Causal Tree for Child Malnutrition

Problem – High malnutrition rates among children under 5 in Mawawasi Province

Inadequate quantity of food provided to children

- Low agricultural production
  - High soil erosion
    - Farmers using slash and burn
      - Farmers unwilling to change practices
  - High inflation
    - Few income-generating activities
      - Women have no access to credit/capital
        - Men control all household income
  - Low income

Poor nutritional quality of foods consumed by children

- Improper weaning
  - Mothers receive no prenatal care
  - Mothers do not participate in child feeding programs
    - Foods are classified based on folklore

- Lack of knowledge about nutrition
  - Families do not attend nutrition education classes
    - Rural households are very superstitious
    - Society places low value on education
  - People unaware of good sanitation practices

Abnormal physical and mental development of children

- High incidence of infectious diseases
  - Inadequate health care
    - Clinics are far from villages
  - Homes open to flies and rodents
  - High illiteracy rates
  - Few doctors willing to work in rural areas
    - Few doctors willing to work in rural areas
  - People unaware of good sanitation practices
  - Households do not hang screens

Households incur high health-care costs

- High mortality in children under five
  - Abnormal physical and mental development of children
    - Men control all household income
      - Mothers do not perceive a problem of malnutrition
        - Rural households are very superstitious
        - Society places low value on education
      - Doctors want high income
        - People unaware of good sanitation practices

- Households incur high health-care costs
  - Inadequate health care
    - Clinics are far from villages
  - Homes open to flies and rodents
  - High illiteracy rates
  - Few doctors willing to work in rural areas
    - Few doctors willing to work in rural areas
  - People unaware of good sanitation practices

High mortality in children under five

- Abnormal physical and mental development of children
  - Men control all household income
    - Mothers do not perceive a problem of malnutrition
      - Rural households are very superstitious
      - Society places low value on education
    - Doctors want high income
      - People unaware of good sanitation practices
# Chapter 3 Review: Analysis and Synthesis

<table>
<thead>
<tr>
<th>Key concepts</th>
<th>Focus questions</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 3.1 Systems perspective reflected in Causal Analysis | • How does Causal Analysis promote a systems perspective?  
• What are the strengths of the Causal Analysis tool?  
• How does the Pareto Principle apply to Causal Analysis? |                                                                      |
| 3.2 The logic of cause and effect    | • What is meant by cause and effect?  
• What are the factors that most directly contribute to the problem your project will address? |                                                                      |
| 3.3 Using cause and effect logic in project design | • Have you considered the criteria you use to define the problem the project will address?  
• Have you established underlying causes? |                                                                      |
| 3.4 Hierarchical Causal Analysis     | • Have you identified the hierarchical causal levels that contribute to the problem your project will address?  
• Have you clearly differentiated between problems, causes and consequences?  
• Does your causal analysis promote a positive approach? |                                                                      |
| 3.5 Methods of Causal Analysis       | • Have you selected the most appropriate method for causal analysis?  
• Does your method clarify the hierarchy of causes and clearly identify causal streams? |                                                                      |