# SECTION II:

# PRACTICAL USES OF CAPACITIES & VULNERABILITIES ANALYSIS

# APPLICATION OF CAPACITIES & VULNERABILITIES ANALYSIS

Capacities and Vulnerabilities Analysis is a **diagnostic tool**. It does not provide direct guidance for actions or prescriptions for what to do. It does provide a way to organize and systematize information in order to facilitate identification of the **possibilities** for creative—and developmental—program responses. C/V Analysis also helps to provide a comprehensive picture, asking program planners to look beyond the physical realm to important factors in social and motivational areas as well.

Accepting that the goal is to provide relief assistance in such a way that long-term development is encouraged, we need to identify the opportunities and requirements for development within any emergency situation. C/V Analysis helps us do this by posing the **developmental question** (will the proposed action support or increase capacities and/or reduce vulnerabilities?) at all points in the program process: in the decision to intervene, program exploration, information gathering, program design, implementation, monitoring, redesign, and evaluation.

## USES OF C/V ANALYSIS AT VARIOUS PROGRAMMING STAGES

### The Decision to Intervene

The essential elements of C/V Analysis can help us make a decision about whether or not to come to the assistance of people who have suffered a calamity.

External NGOs have three basic choices when deciding whether to intervene: 1) to do nothing, stay out; 2) to remain outside but support actions by local NGO partners; and 3) to enter as an operational agency and establish an independent or cooperative program. The decision about which option to choose can be made with reference to the long-term development process. If sufficient local physical and organizational resources exist to deal with the situation, then a decision to stay out will support local capacity. If local NGOs and/or governments have some capacities but insufficient other resources (funding, material, personnel, technical assistance, etc.), then a decision to promote and assist **their** program might be the most developmental choice.

C/V Analysis prompts a decision maker to ask: Are the government and local NGOs able to cope with the situation themselves (i.e, what are their capacities for disaster response)? Could they manage with funds or resources sent in from outside, but without additional personnel from international NGOs? What kinds of help will reinforce the capacities they have?

### Developing a Partnership

If an external agency decides to work through a local counterpart agency, C/V Analysis can be applied in the process of establishing a developmental partnership relationship. What can each partner gain/learn through the partnership? What are the strengths and weaknesses (capacities and vulnerabilities) of the local agency and of the external agency? How does the local agency want to develop and what does it need in order to do that?

What will be the role of the external partner in promoting the development of the local partner, directly and indirectly? How will both partners know that they are making progress? What is the learning agenda for the external NGO? (How will its capacities be increased?)

### Program Exploration and Design

C/V Analysis is a crucial tool in the process of program exploration and design. It provides a practical way to gather and sort information about disaster "victims" and information about all levels of the social and political system. Program planners can use the six-cell matrix to gain an understanding of the long-term strengths and weaknesses of the communities most directly affected by the crisis, and also to identify resources at regional and national levels which can be used to help deal with the crisis.

The information from C/V Analysis can help in deciding with whom to work as well. It is worth noting that program planners also require information from a traditional "needs assessment" which tells them what the immediate and urgent survival needs are in the affected groups. C/V Analysis aids them in deciding what to do and **how** to help meet those needs.

In order to support development, even while meeting emergency needs, a relief agency must take account of the resources which local people have even after the crisis. What do local people have to offer in the way of material and skills? What can they do for themselves? What decision-making systems do they have? To ensure that assistance helps lessen the probability of future disasters, planners need to understand the reasons a community was vulnerable to the crisis.

C/V Analysis also assists the process of projecting how long a program should continue and at what scale, based on an assessment of the effects of outside assistance on local capacities. Aid should continue as long as it assists the development of local capacities; it should stop before it begins to erode them. Aid should be scaled to promote local initiative rather than overwhelm it and create dependency.

Table 1 shows how C/V Analysis can be used in the process of program design to help choose among different program options by projecting the effects of the

**Table 1**

| URGENT NEEDS | POSSIBLE PROGRAM OPTIONS | PROJECTED EFFECTS ON CAPACITIES & VULNERABILITIES |
|---|---|---|
| A. FOOD<br>Amounts<br>Locations<br>Populations<br>Etc. | 1.<br><br><br><br>2. | |
| B. HEALTH CARE<br>Major diseases<br>Weakest people<br>Supply needs<br>Etc. | <br><br>3.<br><br>Etc. | |

various options on capacities and vulnerabilities.

### Program Implementation

C/V Analysis can aid in program implementation decisions. Who should be hired to implement a program and what are the likely effects of those hiring decisions (which capacities will be increased, which vulnerabilities decreased)? Are there local people or people at the national level who have the needed skills or who could gain them quickly? What kind of expertise is needed and how can it be provided so that local people acquire needed skills and knowledge themselves as they receive assistance?

### Program Redesign

Agencies often face the need to redesign an emergency program as conditions change and as the program itself produces results. As an emergency situation abates and people move toward recovery and rehabilitation/reconstruction, new program initiatives are needed. Some of these stages can be anticipated from the beginning, but program phases may need to be reconsidered based on later events. Again, C/V Analysis can serve to help assess the effects of earlier program efforts on the capacities and vulnerabilities of local people and helps aid givers figure out what later work to undertake.

In the midst of an emergency, it is often easier to increase capacities than to reduce vulnerabilities. Emergency programs can give people new skills, repair infrastructure, or revitalize decision-making and leadership systems—all increases in capacities. But long-term vulnerabilities are, in many cases, problems that require efforts over an extended period of time. For instance, if an area suffers from soil degradation, measures to reclaim soils (terracing, mulching, composting, nitrogen-fixing crops, etc.) take years to show results. Program redesign will often reflect a shift from an emphasis on increasing capacities to programs which reduce vulnerabilities.

### Program Evaluation

Traditionally, relief programs have been evaluated on the basis of whether they achieved their stated goals. Typically, an evaluation reports what quantities of goods were delivered to whom over what period of time with what attendant losses or diversion of materials. Numbers of lives saved, homes rebuilt, or infrastructure reconstructed are often cited.

C/V Analysis prompts the evaluator to ask the more fundamental development question: how has the program affected the long-term capacities and vulnerabilities of the local communities (i.e., what capacities have increased, what vulnerabilities have decreased)? Or has the program been **anti-developmental** in some ways (increased vulnerabilities, decreased capacities)? Can positive effects be sustained once the implementing agency withdraws?

Most disaster assistance is provided by local resources through the efforts of the disaster "victims" or "survivors." A great deal of "invisible" assistance is provided by neighbors, friends and family networks and by other local community initiatives. In most cases, the assistance supplied from outside represents only a small percentage of the total need. However, outside assistance can powerfully promote or discourage the long-term development prospects and processes. Capacities and Vulnerabilities Analysis is a tool for "outsiders" (those from other countries and those from other parts of the same country) to use to help them assess and maximize the possible long-term developmental impact of their emergency aid.

## DISCUSSION GUIDE/TRAINING NOTE

### PRESENTATION OF "APPLICATION OF CAPACITIES AND VULNERABILITIES ANALYSIS"

We have found that participants often understand the concepts of C/V Analysis after they have been through one or two case studies, but they are less sure about how to apply it as a practical tool for planning relief interventions in the field. This presentation on the Application of C/V Analysis is intended to help participants understand how they can use it in their own work. While the trainer can also provide copies of the chapter to participants, it will be useful to make the verbal presentation and promote group discussion of how to use C/V Analysis in the field.

**Use Specific Examples**

When making this presentation, the trainer should use concrete examples as much as possible to bring the concepts alive for participants. Some are provided in the cases included in this manual, but you can also use stories from your own experience and refer back to examples in the cases the group has discussed earlier in the workshop.

**Provide Visual Help**

In order to provide participants with some visual clues about your presentation, provide a list of the different stages of programming on the board. Also sketch a six-cell matrix on a blackboard or paper for reference during the presentation. It will be useful to draw another box labelled "Needs Assessment" to show that this is a separate important process. The three-column chart for analysis of program options can also be drawn.

**Tailor the Presentation to the Audience**

Each group of workshop participants will have a slightly different orientation to field work. Some agencies are never operational. Others always work closely with local partners. Some see themselves as "purely" development agencies while others have strong traditions as relief providers. Therefore, the trainer will need to emphasize different stages of the programming process, depending on the nature of the workshop group. For instance, an agency which "never does relief work," but finds that the people with whom it works are suffering from a crisis, may have to make a difficult decision to provide some emergency assistance. For them, the important considerations will be whether to intervene at all and how to design their intervention so that they do not come to be seen as a "handout" agency.

### THE USES OF C/V ANALYSIS AT EACH PROGRAMMING STAGE

As the trainer discusses each of the programming stages, the main point is to illustrate how C/V Analysis affects decision-making by posing the developmental question. This can produce interesting and challenging discussions, since what is most developmental in any particular situation is not always clear cut—relief workers must use their own judgment. As a general approach to this discussion, the trainer could list the various phases of programming (intervention, partnerships, program design, etc.)

on the board and then ask participants to suggest the decisions required at each step. The trainer can then ask the group how C/V Analysis would affect decision-making, starting with the decision to intervene. It would take far too long to ask the group to comment on each stage, so the trainer will want to cover some areas quickly, rather than promoting exhaustive discussion of each point.

**The Decision Whether to Intervene**

The trainer might start this discussion by asking whether it would ever be appropriate for an agency to **stay out** of a disaster situation—and why. C/V Analysis suggests that if there are sufficient local resources (or enough outside agencies already involved) to deal with a crisis, then the most developmental decision might be to stay out—because it is most supportive of local capacities. Participants will also be concerned about the many pressures on Northern NGOs to intervene (in response to constituency demands, government urging, the offer of funds from other major donors, in order to maintain the agency name before the public, etc.). The trainer can raise these dilemmas briefly in his/her presentation and then return to them during the following discussion period.

**Partnerships**

An important dilemma in the structure of partnerships is the balance between development of the local partner agency and development of the "victim" communities themselves. In addition, if the local partner expands as a **relief** agency, will it give sufficient attention to development concerns? As in the other areas of programming, C/V Analysis can highlight these questions so that partners can then decide what the most important developmental concerns are in any specific situation.

**Program Design and Redesign**

A useful example of how C/V Analysis can help with program design decisions is food aid. Food aid represents a powerful resource that can have tremendously positive or devastatingly negative effects. Injections of food on local economies can destroy incentives for farmers to plant, increasing vulnerabilities. On the other hand, if local stores of seed are at risk of being eaten by hungry people, then the most developmental decision might be to bring in some food assistance so that farmers can hold on to valuable local seed varieties to reestablish crop production as soon as possible. The challenge would be to provide enough food to keep people alive and to protect seed stocks while not providing so much that farmers' incentives to plant would be damaged. So, while "less is best" is a good rule of thumb, it must not be applied unthinkingly. The trainer can work out other programming examples that seem most relevant to the participants, depending on the kinds of disasters they are likely to face (earthquakes, floods, typhoons, warfare, etc.) and the ways they operate in the field (in a particular sector, as a supportive donor agency, as a direct provider of relief assistance, etc.). By this point in the workshop, the case studies already discussed should provide several illustrative examples of programming decisions.

**Evaluation, Monitoring**

As at the other stages, the developmental question must be applied when judging the results of a program. The trainer can ask participants to describe the kinds of reports they are typically asked to provide to donors. What information must they provide?

What seems to be the highest priority in those reports? Have any participants ever had a relief program evaluated? If so, what were the criteria applied to the program? Who were asked for their opinions? Staff? Government officials? Victims?

## QUESTIONS FOR WHOLE GROUP DISCUSSION

Once you have presented a summary of how to apply C/V Analysis at various stages, engage workshop participants in a discussion of how they might go about using C/V Analysis in the field. The following questions could be used to encourage discussion:

1. How might C/V Analysis change the way you approach program exploration? What would you do differently or the same?
2. How might you involve disaster "victims" in C/V Analysis? What are the problems you might encounter doing this? How might they be overcome? If you involved those affected in the analysis and in program planning, what might be the advantages or benefits?
3. What are the differences between "needs assessment" and Capacities/Vulnerabilities Analysis? What are the important functions of each?
4. How would you apply C/V Analysis to programming decisions such as_____(choice of program beneficiaries, how long to continue benefits, personnel decisions, coordination with other agencies, etc.)?
5. How might you use C/V Analysis to evaluate a relief program? What questions would you ask in your evaluation?

## INDIVIDUAL PROJECT ANALYSIS

**Purpose of the Exercise:**

The Individual Project Analysis gives each participant a chance to explore, in a new way, a project with which s/he is familiar. By applying Capacities and Vulnerabilities Analysis, participants can see their project activities and results in a new light. It is also a way of looking at the policies and practices of the participant's agency. The exercise includes time for individual work, small group exchange, and plenary discussion.

**Instructions to Workshop Participants:**

1. Choose a project with which you are familiar. This could be a project which you have worked on or supervised or that you know well for other reasons. If you feel that there is no project that you know well enough, use your own local community for your analysis.
2. Use Capacities and Vulnerabilities Analysis to understand what the project did:
   - What were the capacities and vulnerabilities of the community before the project started?
   - What were the immediate needs caused by disaster event(s)? (If applicable).
   - What were the agency's programmatic responses? What did the agency emphasize?
   - How did the program affect the capacities and vulnerabilities of the community? Were the effects greater in one realm (physical/material, social/organizational...) than others? Did the program have a greater effect on capacities or on vulnerabilities? Why? How?
3. You will have about forty-five minutes to complete your own analysis. Then meet with your small group to discuss your insights or thoughts from doing the analysis.
4. We will get together with the full group at ___ o'clock to talk further about the experience of doing this kind of analysis.

**Questions to Focus Plenary Discussion:**

1. From doing the analysis of the project or program what did you learn about your project?
2. Did projects more often emphasize physical/material, social/organizational, or motivational/attitudinal efforts? What were the results? What were the relationships among the three categories?
3. Were there differences in the project's effects on vulnerabilities and on capacities? Why?
4. What did you learn about how to apply C/V Analysis?

## PROGRAM DESIGN EXERCISE

The Program Design Exercise provides an opportunity for workshop participants to apply Capacities and Vulnerabilities Analysis to a realistic situation, working in a team to generate an emergency response designed to promote development. Two different scenarios are provided: one describes a sudden onset situation of earthquake and mudslides; the other concerns drought and famine.

**INSTRUCTIONS:**

**Formation of Program Design Teams**

The trainer should divide the participants into teams of five or six. If participants have already been in small groups during earlier workshop sessions, mix the groups again so that they will have a chance to work with new people.

**Introduction and Scenario**

Hand out the scenario to be used, explain the purpose of the exercise and ask the teams to follow the steps below.

**Disgnation of "C/V Monitors"**

In each team, designate one person whose sole task will be "Capacities and Vulnerabilities Monitor." The task of the Monitor on each team is to listen to the discussion and program suggestions by the other team members and to ask, "How does that use existing capacities, increase capacities, or reduce vulnerabilities?" This keeps the discussion on track.

**Program Design Steps**

The Design Teams will have about an hour and a half to follow these steps to design a program response to the situation described in the scenario:

1. Read the scenario and perform C/V Analysis on the community affected by the emergency (or use the C/V chart provided).
2. How would your team propose to go about developing a program in this setting? Who would you talk to? Who should be consulted with and/or involved in program decisions? Quickly lay out the **process** you would use for program development in the situation given.

   Then, assuming you would follow the steps outlined in #2, proceed to outline a program approach:
3. Which existing capacities could be employed in an emergency program? What existing capacities could be increased or new capacities built? What vulnerabilities could be addressed? How?
4. What are the emergency needs and which groups require assistance? How will your program deal with emergency needs, using the capacities identified in #3 above?

What outside resources will be needed? How long should these outside resources be provided? How will the program phase out or stop?

5. How will the program be implemented? Who will be hired to implement it (local people, skilled nationals, expatriates)? What will be role of local leaders or government authorities? How will ongoing program decisions be made and by whom?
6. Do you foresee the need for later phases of the program? What might such later phases be?
7. How do you think each of your program choices and decisions will affect capacities and vulnerabilities? Be specific.

**Group Reports and Discussion**

Ask each Design Team to give a five-minute report to the whole group on the main points of their program design. After each team presentation, invite questions of clarification from other people. Then ask the whole group to identify both the strengths of the proposed program, and ways it could be improved. Were there particularly creative approaches by the team? How did the proposed program use capacities? How did it propose to increase capacities and/or reduce vulnerabilities? Were there opportunities missed? Were emergency needs met?

**Questions for Group Discussion**

Once all of the teams have presented their proposals and the whole group has considered ithem, if there is time left, the following areas of discussion might be useful.

1. What was the experience of the C/V Monitors? Did they have to remind groups often? What was the effect of the reminders?
2. Was it difficult to consider capacities and vulnerabilities in program design? What went well? What was difficult?
3. How might you use these concepts in your own work? What would be easy to do? What might stand in the way?

**Handout**

# INSTRUCTIONS FOR PROGRAM DESIGN TEAMS

1. Read the scenario and perform C/V Analysis on the community or communities affected by the emergency (or use the C/V chart provided).
2. How would your team propose to go about developing a program in this setting? Who would you talk to? Who should be consulted with and/or involved in program decisions? Quickly lay out the **process** you would use for program development in the situation given.

   Then, assuming you would follow the steps outlined in #2, proceed to outline a program approach:
3. Which existing capacities could be employed in an emergency program? What existing capacities could be increased or new capacities built? What vulnerabilities could be addressed?
4. What are the emergency needs and which groups require assistance? How will emergency needs be met, using the capacities identified in #3 above? What outside resources will be needed? How long should these outside resources be provided? How will the program phase out or stop?
5. How will the program be implemented? Who will be hired to implement it (local people, skilled nationals, expatriates)? What will be the role of local leaders or government authorities? How will ongoing program decisions be made and by whom?
6. Do you foresee the need for later phases of the program? What might such later phases be?
7. How do you think each of your program choices and decisions will affect capacities and vulnerabilities? Be specific.

**Note:** Your Team will be asked to give a **five-minute report** to the whole group on your program design.

# DROUGHT & FAMINE IN BORIMA

## I. BACKGROUND AND CONTEXT

Borima is a land of contrasts: extensive deserts, semi-arid grasslands, tropical rain forest, and the rugged Rainbow Hills. The remote and isolated Rainbow Hills District is at once fantastically beautiful and difficult. The area takes its name from the wide layers of brilliantly colored rock in the exposed hillsides and cliffs. The terrain is full of steep valleys and gorges. Few roads enter the Rainbow Hills; motorized transport stops at the District Town and only pack animals and hardy native horses move through the area.

The Rainbow Hills are populated by two tribal groups. The Alaka occupy the hilltops, tending sheep and goats and trading milk and other animal products, leather, woven cloth and wool for other foodstuffs and cheese. Their language is related to other languages of Borima. They are a close-knit and self-governing group which is proud and protective of their independence.

The Sulaka live in the valleys and depend on rain-fed agriculture, growing millet, sesame, sorghum and some tree crops including gum arabic and hardy fruit varieties. The Sulaka also speak a language related to others in the country, but their dialect is distinct from that of the Alaka.

Alaka and Sulaka villages are often in sight of each other and, over the centuries, the two groups have worked out systems for cooperative use of the local resources. In recent years, however, repeated droughts, population increases and soil degradation have brought the patterns of cooperation under increasing stress. The Alaka have tried both to increase their herds and to increase family incomes in other ways, including agricultural projects lower on the slopes. At the same time, facing reduced yields from depleted soils, the Sulaka have expanded their agricultural efforts by using some simple irrigation methods and planting further up the hillsides.

Both groups have disturbed the delicate vegetation on the hillsides and severe erosion has taken place. Each group has blamed the other for the erosion and conflicts have erupted with increasing frequency. Conflicts have also increased over water rights at ancient well sites and at newer bore holes. The older wells were considered common property by both groups with careful agreements about rights to use them. As the Sulaka have increased their use of irrigation, the pressure on the traditional arrangements has caused strife. Twenty deeper bore hole wells were drilled with the assistance of an international NGO. However, many of these wells have fallen into disrepair since there is no system for maintenance; only 30% of the pumps are functioning.

The Alaka and Sulaka share a local religious tradition. Throughout the region, there are small religious shrines at sites outside of villages. The shrines provide temporary homes for itinerant holy men who move from shrine to shrine. Sulaka and Alaka village people provide for the food and other needs of a holy man when he is in residence at a local shrine. In return, the holy men provide religious instruction for the children and, when needed, serve as mediators for com-

munity conflicts. They also pass along recent news and traditional stories and perform religious rites for the communities.

Fewer in number but also wielding significant influence in the region are a group of holy women, many of whom attend births and practice traditional healing using herbs and other practices passed down from generation to generation. Unlike the holy men, these holy women are not itinerant, but live in small communities of five to ten women who serve a specific set of villages. They guide women in the communities in preparation for religious rites. Some also have knowledge about the care of animals. Villagers with sick animals take them to a nearby womens' community for assistance.

In the Sulaka villages, men take responsibility for crops in the field in the valley areas where there is sufficient soil and along seasonal stream beds. They prepare the fields, wealthier farmers using teams of oxen and the poorer digging by hand. They sow seeds and work with the rest of the family on weeding and harvesting. Women assist with weeding and harvesting, take major responsibility for processing crops (threshing, hulling, preparation of oils, etc.), while men build storage facilities. In addition to these activities, women prepare food, haul water, gather fuel wood, care for children, and grow additional vegetable crops in household gardens. Marketing of produce is handled exclusively by men, although women do engage in bartering among themselves within their own villages. Girls assist their mothers and have special responsibility for caring for the smaller domestic animals. Boys shepherd the larger animals.

Most Sulaka farmers grow millet and sorghum for household consumption. They also grow sesame, selling the seed or oil. Although the Sulaka have traditionally grown some fruit varieties and tended acacia trees for gum arabic, a combination of low market prices for gum arabic, tree cutting for fuel wood and stress of drought have greatly reduced the numbers of trees in active production in the area.

In recent years, even when the rains have been sufficient, it has been difficult for farmers to grow enough for family needs. Much of the soil is depleted and erosion is a major problem, due to a lack of crop rotation, fallowing, terracing, and the loss of tree and grass cover. As families have increased in size from generation to generation, the size of holdings has decreased, placing more strain on the poor lands and forcing farmers to open up marginal hillside land for cultivation.

The Alaka depend largely on products from their sheep and goats for their survival. The soils on the slopes and hilltops are not adequate for cultivation, but support a number of hardy grasses. In recent years, however, some grass species have almost disappeared due to overgrazing, erosion, and drought.

In the Alaka households, women take charge of young animals and work out of the home, caring for children, preparing food, gathering water and fuel wood. They also work with the men in preparation of milk products, including a valuable goat cheese. The cheese is processed in deep caves, each controlled by an extended family or community and highly prized.

Men and boys among the Alaka tend the larger animals, handle shearing of sheep and all marketing and transport duties. The women wash, card and spin wool for sale or local weaving. The weavers are men trained through a system of apprenticeship. Each weaver inherits patterns and techniques passed down as valuable artisanal possessions.

Another group of artisans works with sheep and goat leather. The woolen and leather products of the Alaka are sold in markets, both local and distant. The cheeses are sold in local markets and relatively nearby districts only, due to difficulties of transport and storage.

For five years, an international NGO has been working with the Alaka, mainly with a concern for improving nutrition among the children. They have encouraged Alaka families to grow vegetables and grains for family consumption and increase their self-sufficiency. Since the hilltop areas are all reserved for pasturage, the fragile soils of hill slopes have been used for these projects. Although some families have successfully grown crops, erosion has resulted in many cases, causing disputes with neighboring Sulaka communities.

Each Sulaka village has a council of elders, all men, who make major decisions for the community. The chief elders from all of the Sulaka communities also meet yearly or when specially called to discuss urgent problems. Among the Alaka, the pattern is similar, although the structures are clan-based and elders from among the weaving and leather artisans hold special status as well.

Women discuss community affairs regularly among themselves through informal channels and exert influence through their families. They also meet several times a year in womens' councils which are also attended by holy women. Although these meetings deal primarily with preparations for religious festivals, they also address crises in the community when necessary.

The influence of the Government of Borima in the Rainbow Hills District is minimal. While each subdistrict theoretically has a party organization, in practice neither the Sulaka nor Alaka have taken active part in government and politics, although the forms exist more regularly in the Sulaka villages.

Few Alaka can speak or understand Borimani, the language of the dominant tribal group in the country. While Borimani is linguistically related to both the Sulaka and Alaka languages, the dialect is distinctly different in pronunciation and is particularly difficult for Alaka speakers. There is a low literacy rate among both tribes (10% of men and 5% of women, mostly in the holy orders). Only 20% of school-age children are in schools (which teach in Borimani).

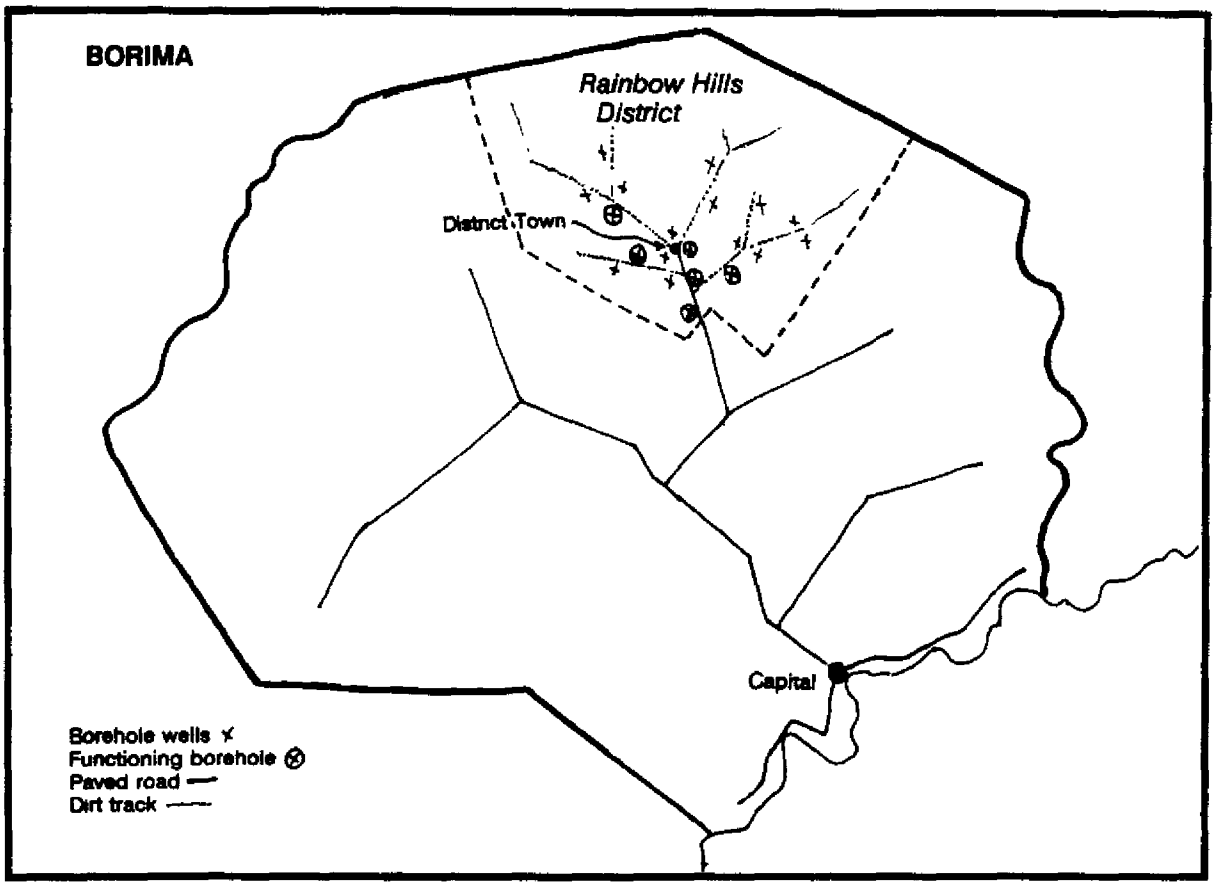
There is a government health clinic in the District Town, but efforts to set up a system of village health workers have failed as local people have not trusted Borimani nurses using modern medical practices. Chronic malnutrition is common among both tribal groups, and infant mortality rates are above the national average.

## II. THE CRISIS

The rains were poor for the past three years in the Rainbow Hills, although they were nearly normal elsewhere in Borima. This year they have failed entirely. The grain reserves among the Sulaka are completely gone. Now only the deepest hand dug wells and the few operating bore holes continue to provide water. While the Alaka fared better during the first years, as the grass cover has withered, older and weaker animals have begun to die and children are showing increasing signs of malnutrition. Death rates among children and older people have increased dramatically in both Sulaka and Alaka villages as measles have swept through and acute diarrhea claims lives. Younger men have begun to leave the area seeking employment in other areas of the country.

As the crisis has deepened, community leaders, both men and women,

have met in their councils and consulted with the holy orders. A delegation has been sent to the capital to appeal to their official District Deputy, a man who was formerly a highly respected holy man in the District. Since he was elected Deputy, however, he resides in the capital and only rarely visits the Rainbow Hills. The delegation hopes he will be able to find some assistance for the stricken region.



# EARTHQUAKE AND LANDSLIDES IN THE OLAGRANO NEIGHBORHOOD

## I. GENERAL INFORMATION

Olagrano is a neighborhood on the steeply sloped outskirts of the city of Bellevista, the capital of Montania with an urban population of one million. Approximately 20,000 people live in the community, although no accurate census figures are available. Almost all (95%) are members of three tribal groups originally from mountain areas. These mountain tribes people speak a common tribal language and about 55% can speak at least some Montanian, although 80% are illiterate (65% among men, 95% among women). The average annual family income in the community is about $200.

Most residents of Olagrano work as unskilled day laborers around the city. There are some artisans (blacksmiths, traditional crafts, weaving, shoemaking, basketry, etc.). Two nearby light electronics factories employ 1,700 men and women from the neighborhood. Others work as day labor in construction, some for Public Works, but must travel 10 km to work sites. Some women work in household service jobs as domestics or for hotels, etc. Other women and some children run street stalls.

## II. THE EARTHQUAKE

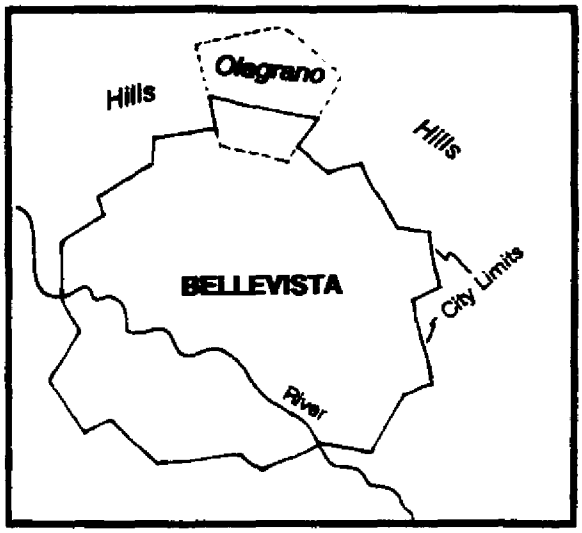
Prior to the earthquake, 60% of the homes in the Olagrano neighborhood were of adobe of mixed stability. Over half of these have been completely destroyed or severely damaged. The earthquake has also precipitated a landslide in one area which has buried many homes and severely damaged a school which was at the bottom of a slope (one of three schools in the neighborhood). Local leaders estimate that there are 6,000 homeless people (1,000 families).

An estimated 150 people from Olagrano were killed in the quake. Many injured people (500) were treated on site, but some 85 remain in hospitals one week after the earthquake.

Two of the five shallow wells in the neighborhood have dried up, probably due to changes in underground rock formations. One operating well is brackish. One deep well with an operating pump is apparently fine.

The city has cut all electrical supply to the neighborhood, claiming that safety requires it. Lamp oil is in short supply. Many people are living in temporary shelters of plastic sheeting and scrap wood or merely huddled among the rubble. It is now three months before the onset of winter.

The accompanying charts provide additional information about Olagrano.



# OLAGRANO NEIGHBORHOOD, BELLEVISTA, MONTANIA

## PHYSICAL/MATERIAL

### Vulnerabilities

- Poor housing stock, mostly adobe (60%) or built from scrap wood (30%). A few cement homes with tin roofs.
- Eighty percent of the neighborhood is built on 25% or more slope. Ground is unstable and there is frequent severe erosion.
- Only lower sections of Olagrano are officially recognized by the city and receive services. Other 70% is illegal and without services. Few residents have title to land on which their homes stand.
- One small health clinic with part-time health aide with 6 months training. High child mortality rate, frequent incidence of disease and malnutrition.
- Poor sanitation, no drainage or sewers. Inadequate water supply: five shallow wells, one deep well with hand pump.
- Unemployment 20% among men aged 30-45, 35% among young men. Women employed mostly in informal sector; 10% find work in formal sector.
- Forty percent of population has arrived within the past five years from rural areas; few have skills for urban employment.
- Electrical services mostly pirated from overhead wires and shared throughout neighborhood, occasionally cut by city.

### Capacities

- Lighter housing less vulnerable to earthquakes.
- Traditional construction techniques known, including some used for thousands of years in mountain villages prone to quakes.
- Local low-tech erosion control methods used in some areas.
- Cheap unskilled labor force is crucial to several industries in Bellevista.
- Women's weaving cooperative has been operating for five years with help from a European development agency.
- Three primary schools with capacity for 30% of school-aged children.

## OLAGRANO NEIGHBORHOOD, BELLEVISTA, MONTANIA

**SOCIAL/ORGANIZATIONAL**

### Vulnerabilities

- Few community groups for action, especially among recent arrivals.
- Traditional social structures not brought from countryside; system of elders not maintained, including conflict resolution role.
- Many young people reject traditional values; alcohol and drugs are an increasing problem.
- Rival tribal groups vie for political control in neighborhood; at least one killing in the past year was attributed to tribal conflicts.
- Forty percent of the population speaks only tribal language, not Montanian.
- Of 3,500 families, about 1,000 are female-headed.
- Power struggles are internal, not oriented towards gaining influence or resources from government or political parties.

### Capacities

- Informal leaders based on tribal groupings.
- Traditional religious organization is intact, including a mendicant monk order with monastery nearby. People well organized to prepare for annual festivals.
- Women have begun to organize to address health problems, an outgrowth of weaving cooperative.
- Youth club started by monks has begun to discuss projects in the neighborhood, including building a community center, but no funds are available yet.
- Although monks have traditionally been other-worldly and have not intervened in civic affairs, some younger monks have begun to work in the community. They have called meetings of rival tribal leaders to identify common problems and work on solutions.
- Each tribal group has an informal mens' club, called a "changal," and a womens' equivalent called a "brangal." In the city these have been drinking and social clubs, but in the countryside they were used for community projects.

## OLAGRANO NEIGHBORHOOD, BELLEVISTA, MONTANIA

**MOTIVATIONAL/ATTITUDINAL**

### Vulnerabilities

- Tribal groups from mountains resent Montanian language groups which dominate economic and political life. Alienation is common.
- Little sense of ability to affect their situation.
- Ambivalent attitude towards their role in Montanian society, some advocating modernization and assimilation, others wishing to maintain traditions.
- Young people especially discouraged. Some frustrated because marriages not allowed until a man can show he can support a family.
- In the wake of the earthquake, many people are fearful of recurrence and uncertain of assistance from government.

### Capacities

- Festivals well attended twice yearly – seem to bring community together.
- New signs of reassertion of cultural identity and some ideas about updating traditional community organizations for use in the urban setting.
- People see themselves as "survivors" in difficult conditions.
- People feel that if things get bad enough, they can always return to home mountain villages where life is rough but secure.

## DISASTER PREPAREDNESS & MITIGATION STRATEGIES

The purpose of this discussion is to consider the implications of disasters on "regular" development programming. While the bulk of the workshop focusses on disaster response, it is important to explore how disaster mitigation and preparedness efforts can be built into community development efforts on an ongoing basis. The aim of mitigation and preparedness programs is precisely to reduce vulnerabilities to crises or natural hazards and to increase capacities to cope with them, should they occur. Mitigation programs diminish the effects of disasters (by constructing buildings with earthquake-resistant techniques, removing homes from flood plains, developing better food security systems, etc.). Preparedness programs provide skills, organization and material resources that help populations deal with the disaster (first aid, communications, team building, community awareness, etc.). These kinds of considerations are particularly important in areas that are disaster prone.

### DISCUSSION PROCESS

#### Form Small Groups

Participants should be divided by region or country (or area within a country or sector) so that they will be able to discuss what kinds of mitigation and preparedness strategies would be appropriate for their area.

#### Instructions to Small Groups

You are a group of experts asked to provide recommendations to your government (or regional governmental coordinating council...) regarding disaster preparedness and mitigation measures which should be included in the national development plan and incorporated into proposed programs or projects by NGOs and international agencies. You will have about an hour to come up with the rough outline of a plan.

1. What are the most likely disasters to occur in your country (or region)? Remember to include all kinds of disasters, such as earthquake, flood, drought, typhoon, conflict, war, economic depression, industrial accident, etc.
2. For each disaster type, what mitigation measures should be taken as part of ongoing development work? What preparedness measures should be undertaken?
3. For each mitigation and preparedness program you advocate, who should take responsibility for: mobilizing people, raising consciousness about the hazards, providing needed resources and training, monitoring progress and evaluating the results of the program?
4. For each member of your small group, what step(s) could your organization take **easily** to promote mitigation or preparedness without significant additional funding or altering present program priorities?

## Whole Group Discussion

Group reports are not always interesting, but, on the other hand, can serve as a basis for additional discussion. The trainer will have to decide whether to ask for full reports, to request only short reports of highlights, or to move immediately to a broader discussion. The following questions can be used to focus discussion once groups return.

1. What did you discover about whether mitigation and preparedness efforts can be centralized or decentralized? What do think would work best? Why?
2. How should government, local organizations, and NGOs cooperate on this kind of program?
3. What are the differences among the various kinds of disasters you discussed? Were some easier to deal with? Why?
4. Did you discuss any conflicts that could be mitigated – thereby "preventing" violent strife? What would conflict mitigation strategies look like?
5. What kinds of measures did you discuss that could be undertaken by your own agencies?