



TRAINER'S GUIDE

This guide is a companion to the module on Disasters and Development, and is designed to help you present the material in an interesting and interactive manner. There are two parts of this guide. The first, "The Basics" gives some advice for the presentation of any material for an adult audience. The second, "The Specifics" relates specifically to the module on Disasters and Development. It provides a step by step guide through the presentation of the material covered complete with overheads, group exercises, and even reminders for taking breaks as needed. Although the guide can be the basis for a complete and structured presentation, your creativity and response to the dynamics of the training session are essential to providing a good learning experience. Improvise as you see fit, and always remember to relate the material presented to the experiences and needs of the participants.



THE BASICS

Preparation

Careful preparation is the key to any successful presentation. If you are familiar with your audience, it is important to tailor the material presented to relate to their experiences. You should first look over all of the material available and then select those materials suitable to the time constraints of the training session and the needs of the participants. Try to augment the materials with items that are "closer to home" for the audience. Related articles from local newspapers and magazines can strengthen the points being made and give them more relevance for the individual participants.

Also remember that the discussion may go far afield from the material presented despite your best efforts to "keep on track." This is not necessarily a problem as long as the discussion covers the areas that are of concern to the audience and are related to the material at hand. It will be up to you to decide if the material being covered is of value to the group. Remember that time is always in short supply and should be used to the best advantage of all concerned. To make these decisions you will have to be familiar enough with the material to know what parts can be left out or covered very quickly with your particular audience.

The physical environment of the training and the visual aids that you use can either strengthen or weaken your presentation. Small matters of detail can often make a training run smoothly if properly attended to and planned for. The following are a few of these "small things" that should not be overlooked:

- If you intend to use a flip chart for presentations or for group exercises, be sure to have an adequate supply of paper and markers.
- Check out the markers to make sure that they are in good working order (not dried up).
- Make sure that the stand or stands are stable.
- Bring tape and pins if you need to attach sheets to the wall.
- Remember extra lamps for the slide or overhead projector.
- Test equipment before setting up for the presentation.
- Look over the room for the presentation and be aware of electrical outlet locations. Will you need extension cords?
- Be aware of window and door locations. Arrange the screen and projector to allow for exit and entry from the room without disruption of the session.

The basics of adult learning

The participants of this training session are your colleagues. They bring with them many insightful experiences that may enhance the session. As such, the

basic tenets of “classroom learning” do not always apply. Remember the following points when giving a presentation for an adult audience:

- The participants will learn the material better if they can relate it to personal experience or daily use application.
- As your colleagues, the participants will be more interested in the session as a whole if they can actively participate rather than simply listen.
- As adults, the participants are responsible for their own learning, and should be encouraged to ask questions that will provide them with what they really need to know.
- The learning objectives of the session should be defined at the outset.
- You should be flexible but remember the basic thrust of the session. The participants have various learning styles, but they are attending this session to learn about this topic.

The ice breaker

Often the most difficult and the most important part of the training session is the beginning. It is important to get off to a timely start and to set the proper pace in order to complete the session in the time available. Participants need to be introduced to one another and made comfortable in their surroundings. They also need to be quickly prompted to take an active role in the training. This may be done with an “icebreaker.”

One typical exercise is to divide the participants into pairs and have them interview each other. After a few minutes have the interviewers introduce their counterparts to the group as a whole.

Another idea is to ask the participants to introduce themselves and to each give a short statement of their expectations of the course or give a short narrative about experience they have had with the topic to be covered.

Whichever method you decide to use, the point is to quickly get all of the participants to actively participate (even if in a small way) as soon as possible.

The first ten minutes

You have your material, you have your audience, you even have an ice-breaker ready to use. This is one way of getting started.

1. Welcome the participants and introduce yourself and the topic to be covered.
2. Use your icebreaker to get everyone involved in the process.
3. Review the learning objectives of the session. Ask the participants for additional objectives that they may wish to pursue.
4. Make it clear to the group that the session is to be interactive and that active participation in the session is the norm. Encourage the participants to ask questions as they arise, and to freely add their own input on issues that they have had personal experience with.
5. Outline your schedule (and strive to keep it). You may want to appoint or ask for a volunteer timekeeper to help keep the session on schedule.

Group exercises

To give some variety to the session and to keep the participants actively involved, you may want to mix in some group activities or exercises. Some of the basic types of activities are as follows:

Example 1

Divide the group into smaller groups and assign a short question or case study. Have the groups identify the pertinent issues to the session topic and have them compile by consensus a list of their conclusions. Ask that one of the group members be the reporter who will then present their findings back to the "plenary."

Example 2

Pose a general question to the group as a whole and then "brainstorm" the issues using a flip chart or the overhead projector to record the results. If the question serves as a "pre-test," present the list and then review it after the material has been covered in the session.

Example 3

Role playing scenarios. Work up a possible scenario that might occur in the participants' day to day activities. Have the group break into sub groups who will take on the role of agencies or individuals responsible for different aspects of the scenario and have them work through the issues in this way.

Audio visual aids

Audio visual aids can greatly enhance your presentation. To be effective they must:

- Clearly illustrate the topic at hand
- Hold the attention of the participants
- Focus attention on the essential points
- Reinforce the message that the presenter is trying to get across

This guide has a complete set of overheads included which can be used to present the topic. You can add to or delete from this collection of overheads as you see fit. Clear acetate sheets and colored felt tip markers will allow you to highlight areas on the overheads provided or to create instant overheads as needs arise. If you are going to rely on the overhead projector for your presentation you should follow these reminders:

- Clean the lens and surface in advance
- Set up the screen and the projector in advance, if possible, then set up the screen as high as possible and at an angle to the wall
- Face your audience, not the screen, and use a ruler or pointer to direct attention to the appropriate points as they are discussed
- Turn off the machine when not in use



THE SPECIFICS:

Disasters and development

The following guide is designed as an aid to the presentation of the module on "Disasters and Development". Although the overheads provided and the cues to the presentation are a complete set, they are really only a starting point for your presentation.

If your available time is less than 3 hours for the full presentation, you will have to decide which points you will cover and those which you will not address. If your personal experience has given you additional insights or illustrations of the points presented, integrate them into your presentation. You may want to edit out, or add overheads to the presentation.

Similarly, you must know your audience and their needs in order to make the presentation pertinent to the group. If the information is available early enough, you can alter the material to suit the particular needs of the trainees. Remember, the guide is for a "generic" presentation on this topic, and your input can help to "bring the information home" to the participants.

Materials you will need

All of the usual items required for any presentation are listed under the first part of this guide: "The Basics". Some additional items particular to this module are as follows:

- Copies of the training module "Disasters and Development". You may prefer to distribute these at the end of the session in order to keep the group more focused on the presentation.
- A copy of the UNDP/UNDRO Disaster Management Manual
- Copies of other illustrative documents you may have access to (World Bank guidelines for emergency lending, for example)
- Copies of "An Overview of Disaster Management" module

The Presentation

This presentation is based on a total of three hours.

INTRODUCTION (15 minutes)



Welcome

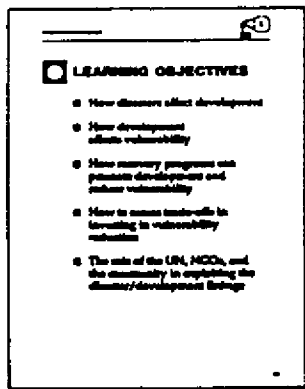
Introduce yourself, have participants introduce themselves (try an icebreaker).

Topic identification

Introduce the topic "Disasters and Development". Explain your format, schedule, and arrangement for breaks and messages.

Objective setting

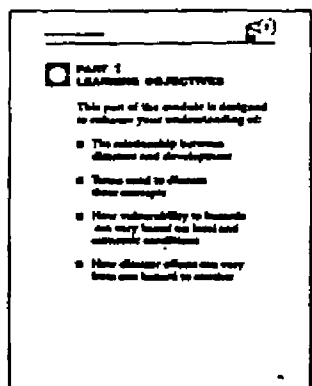
Ask participants to list their learning objectives on a flip chart or wall chart.



1 Learning objectives

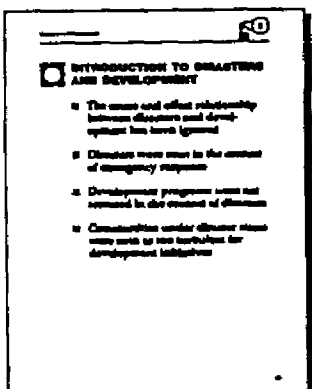
Compare the participants learning objectives with these.

PART ONE: THE RELATIONSHIP BETWEEN DISASTERS AND DEVELOPMENT (45 minutes)



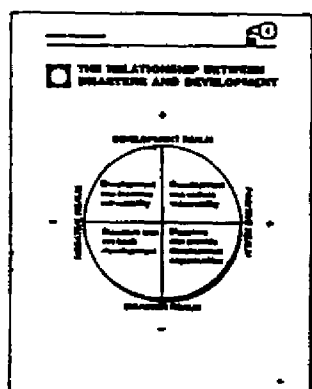
2 Part 1 learning objectives

Review these learning objectives to frame the following discussion.



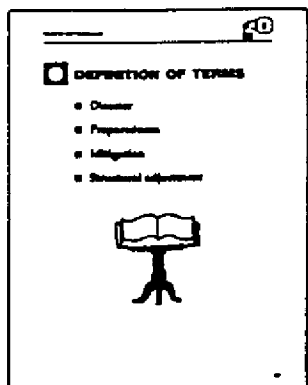
3 Introduction to disasters & development

Discuss the historical tendency to separate disasters and development. Ask the participants to comment why this orientation was prevalent and what, if any, problems have resulted.



4 The relationship between disasters and development

Discuss this as the new paradigm. Work through the four quadrants of the figure providing your own examples or using the examples provided in the module. Ask participants for other examples from their own work.

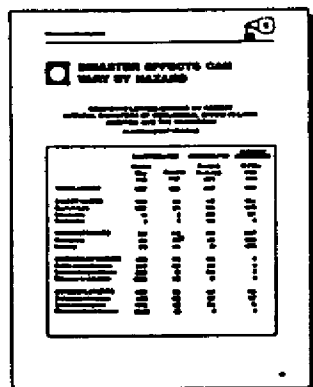


5

Definition of terms

Review the terms on the overhead and ask the participants if these definitions are familiar to them. Ask participants to clarify their own sense of what development is. Compare different definitions that the group identifies and ask how different groups within a vulnerable society might define development.

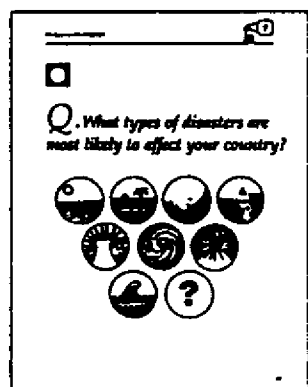
▲**Warning!** Cover this point quickly and then move on. The discussion of terms and definitions can often take too much valuable time in the presentation without leading to any consensus or particular point. The idea is to simply acknowledge that terminology differs among users, and to agree on a definition to be used for this training.



6

Disaster effects can vary by hazard

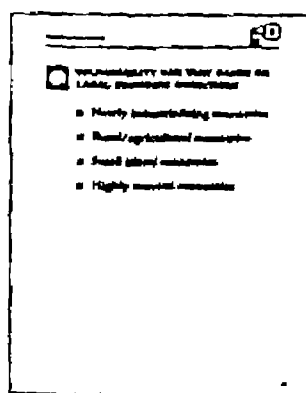
Provide a general discussion of the results from different hazards. Use the table and the case studies to develop the discussion. Ask if any participants were present for these disasters and, if so, ask for confirming evidence. Review conclusions from pages 6 & 7 of the module.



7

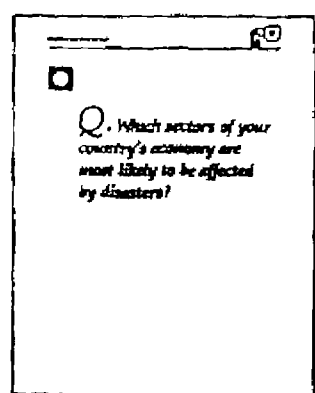
Question

Ask participants for their personal experience of how different types of hazards have had different effects in countries that they have worked in.



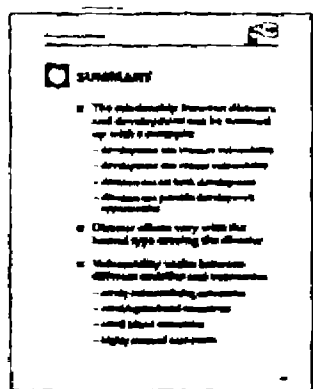
8 *Vulnerability can vary based on local economic conditions*

Review the different types of economies and provide examples of differential effects from the module and from your personal experience



9 *Question*

Seek participants' answers and record them on flip charts. Identify those sectors most vulnerable and compare them to the previous discussion.



10 *Summary*

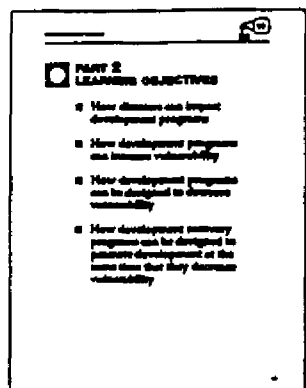
Review the material that has been covered up to this point and reinforce the learning objectives.

BREAK (10 minutes)

This is a good time to take a break.

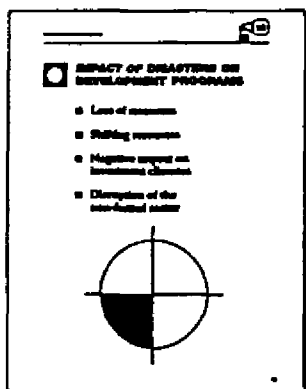


PART TWO: UNDERSTANDING AND EXPLOITING DISASTER/DEVELOPMENT LINKAGES (45 minutes)



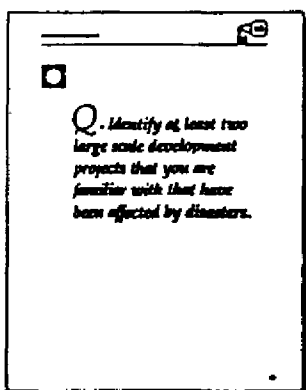
11 *Part 2 learning objectives*

Review the learning objectives for this section.



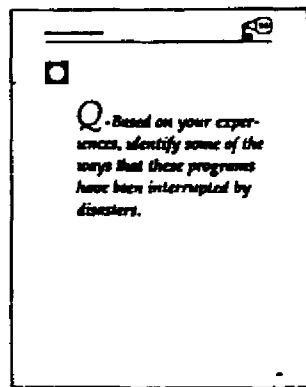
12 *Impact of disasters on development programs*

Review the material on the overhead and draw additional examples from the Mexico earthquake case study.



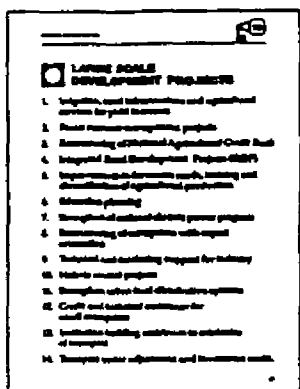
13 *Question*

Ask participants to answer the question, ask each participant to give one example, record their responses on the flip chart.



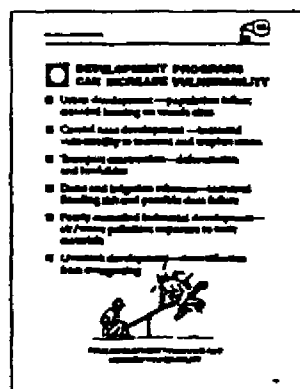
14 *Question*

Break the group into subgroups of approximately four persons and ask them to choose a development project from the list on the flip chart and identify how the programs have been disrupted. After about 10 minutes ask the groups to report their consensus answers.



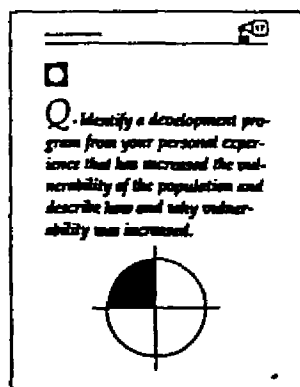
15 Large scale development projects

Use this overhead only if the group has difficulty in identifying large scale development projects in response to OH 13.



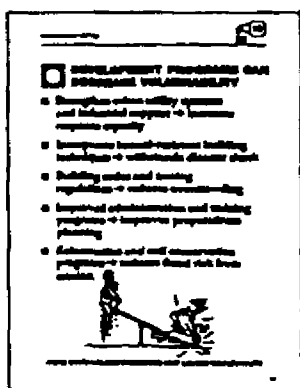
16 Development programs can increase vulnerability

Discuss each of these relationships indicating that well meaning development projects can have negative consequences. Draw material from the case study for additional examples.



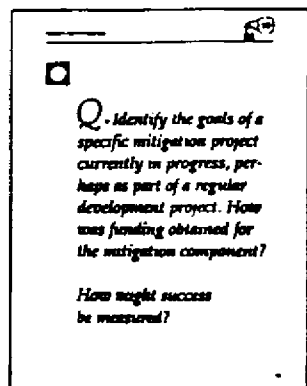
17 Question

After the group has individually completed this exercise ask for one or two examples and have a brief discussion. Keep the discussion concise and avoid a lengthy digression.



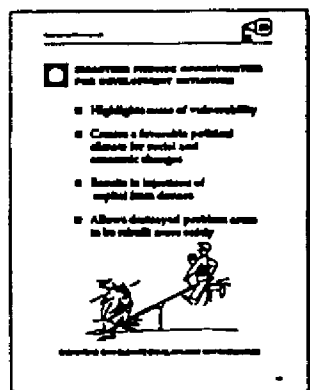
18 Development programs can decrease vulnerability

Discuss the impact of each of these programs and draw additional examples from UNDP Case study.



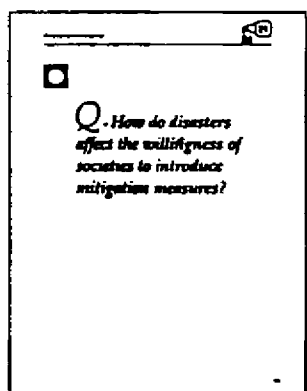
19 Question

Break the group into subgroups of four persons and ask each group to choose one example that they feel exemplifies the concept. Give the groups approximately ten minutes to work on the question and then ask for reports.



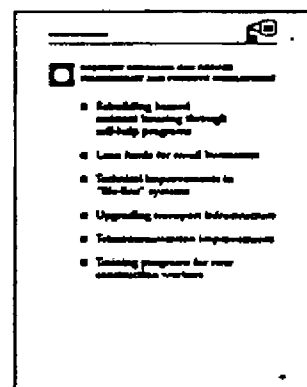
20 Disasters provide opportunities for development initiatives

Review each of the points. In your remarks discuss why development opportunities are frequently missed or ignored drawing examples from the module discussion. Use World Bank criteria to indicate the types of projects donors will support.



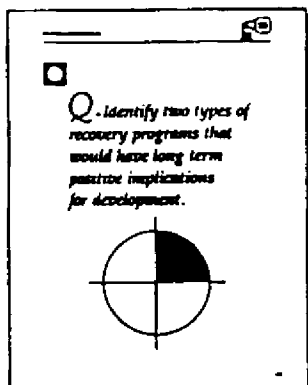
21 Question

After the participants have answered the question review the answers provided in the module, provide examples from your own experience and ask for additional comments from participants.



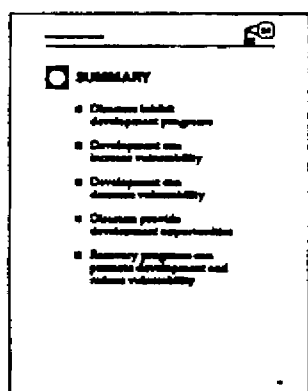
22 Recovery programs can reduce vulnerability and promote development

Review how each of these programs accomplishes both goals of reducing vulnerability and promoting development. Use the case example to reinforce the points.



23 Question

Ask each participant to give one example and record these on the flip chart.



24 Summary

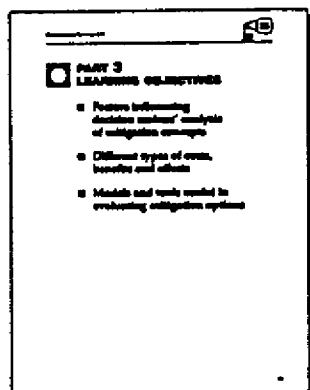
Review each of these points and reference the previous discussion.

BREAK (5 minutes)

Take another short break.

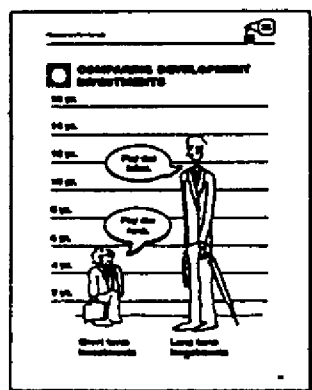


PARTS THREE AND FOUR: ASSESSING TRADE-OFFS IN INVESTING IN VULNERABILITY REDUCTION AND FORGING THE LINKS BETWEEN DISASTER AND DEVELOPMENT (45 minutes)



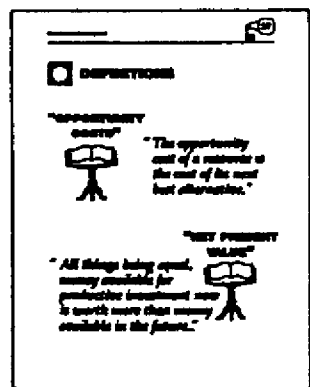
25 Learning objectives

Use this as an introduction to Part 3.



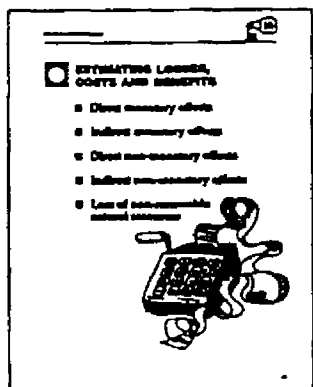
26 Comparing development investments

Discuss why politicians are often reluctant to invest in preparedness/mitigation. Introduce the concepts of risk and uncertainty. Ask participants if they have had experience with politicians refusing to accept mitigation because of limited obvious near term benefits.



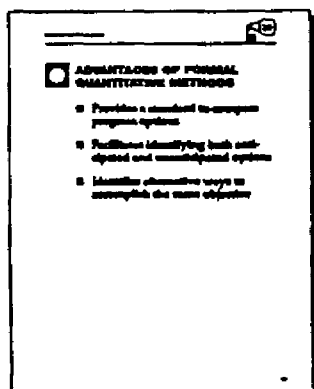
27 Definitions

Review these definitions and point out that despite the factors discussed in the previous discussion, forward thinking leaders are beginning to see the benefits of preparedness/mitigation. This is partially due to seeing matters from the point of view of these concepts. Close with the questions posed in the text on page 35.



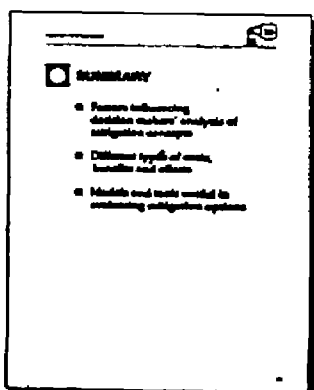
28 *Estimating losses, costs and benefits*

Review each of these terms but avoid debating the concepts. Indicate that economists are making progress in providing quantifiable methods of comparing development alternatives. Include a discussion of costs and benefits indicating that costs are easiest to quantify but that benefits are like estimating losses. Choose examples from the text, case studies or refer back to OH 6 for further examples.



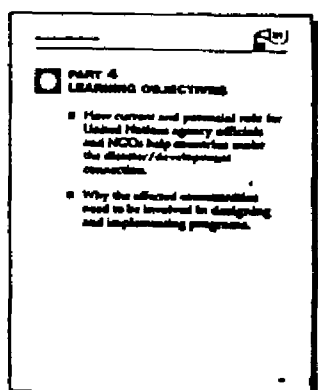
29 *Advantages of formal quantitative methods*

Review the overhead. Ask participants if they have had experience with formal cost/benefit analysis and how they have found it useful.



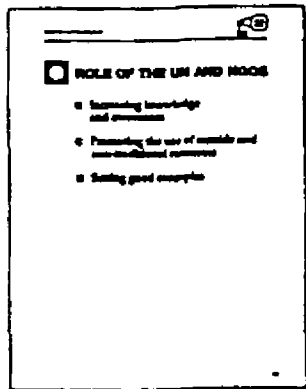
30 *Summary*

Recall learning objectives and review the material that was just covered in this session.



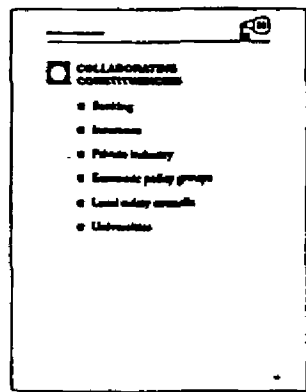
31 *Learning objectives*

Review these learning objectives for the first section of the course.



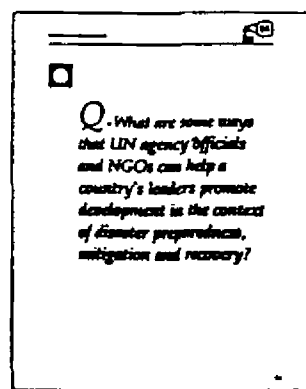
32 *Role of the UN and NGOs*

Review why the UN is promoting the concepts discussed in this module. Ask participants to identify NGOs that are interested in these concepts also.



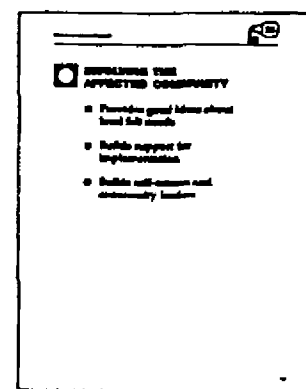
33 *Collaborating constituencies*

Discuss why these groups should have an interest in promoting preparedness/mitigation. Ask participants to identify other constituencies in countries they have worked in. Solicit ideas about strategies that have been useful in involving these groups in developing overall country-wide disaster plans.



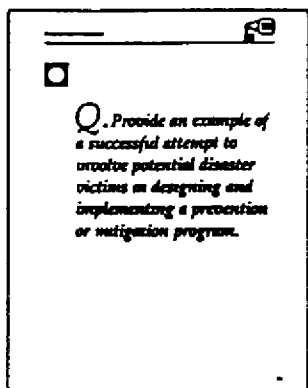
34 *Question*

Ask the group to brainstorm ideas that have worked in the past and other ideas worth trying. Record these suggestions on the flip chart. Ask the group to select the five best ideas from the list generated.



35 *Involving the affected community*

Review the benefits of involving local people and organizations in planning and implementation efforts. Discuss why these groups are often ignored in the planning process and why ignoring them is not good policy. Stress the importance of community development in communities at risk prior to an actual disaster.

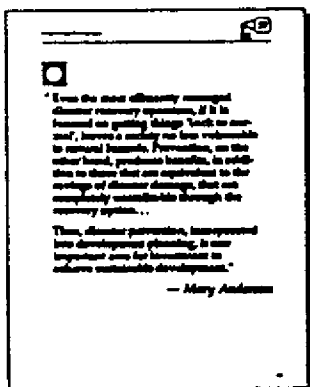


36 Question

Ask participants to identify from their experience successful attempts to involve potential disaster victims. Focus the discussion on what has worked and why the participants felt the program was successful.

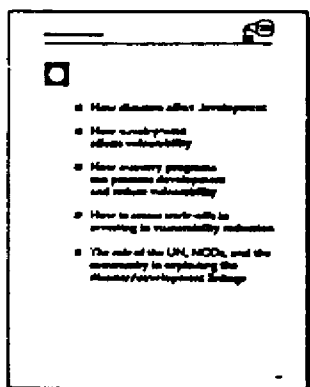
WRAP-UP (15 minutes)

- Recall major issues covered in the session.
- Identify conclusion reached.
- Identify questions left unanswered.
- Ask everyone to complete the evaluation form and thank them for attending.



37 Mary Anderson quote

Use this quote to sum up the presentation and reinforce the major points.



38 Learning objectives

Recall the learning objectives from the first overhead and review how they were addressed. Ask each participant to identify one major insight that they have had as a result of this learning experience. Ask for unanswered questions. Hand out the evaluation forms.



LEARNING OBJECTIVES

- How disasters affect development
- How development affects vulnerability
- How recovery programs can promote development and reduce vulnerability
- How to assess trade-offs in investing in vulnerability reduction
- The role of the UN, NGOs, and the community in forging the disaster/development linkage



PART 1

LEARNING OBJECTIVES

This part of the module is designed to enhance your understanding of:

- The relationship between disasters and development
- Terms used to discuss these concepts
- How vulnerability to hazards can vary based on local and economic conditions
- How disaster effects can vary from one hazard to another

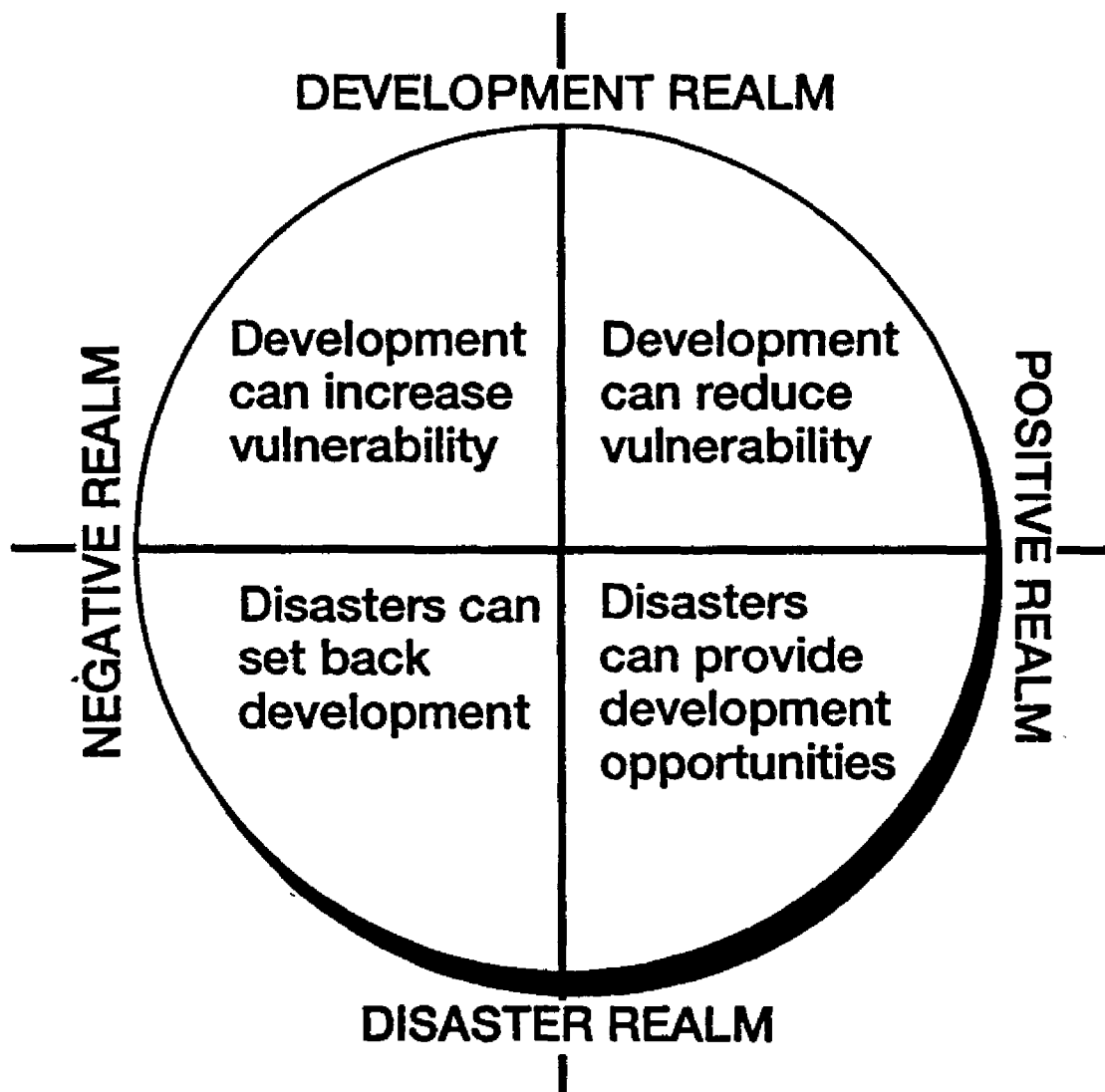


INTRODUCTION TO DISASTERS AND DEVELOPMENT

- The cause and effect relationship between disasters and development has been ignored
- Disasters were seen in the context of emergency response
- Development programs were not assessed in the context of disasters
- Communities under disaster stress were seen as too turbulent for development initiatives



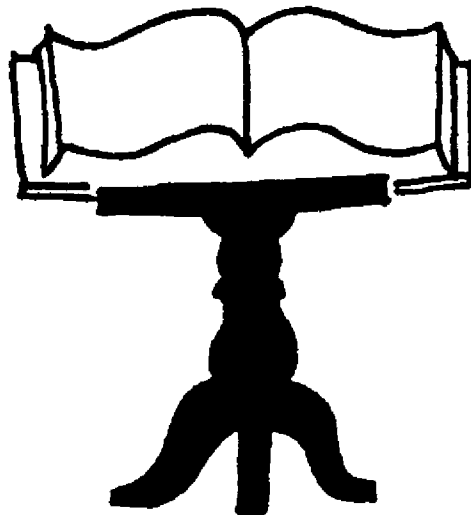
THE RELATIONSHIP BETWEEN DISASTERS AND DEVELOPMENT





DEFINITION OF TERMS

- Disaster
- Preparedness
- Mitigation
- Structural adjustment





DISASTER EFFECTS CAN VARY BY HAZARD

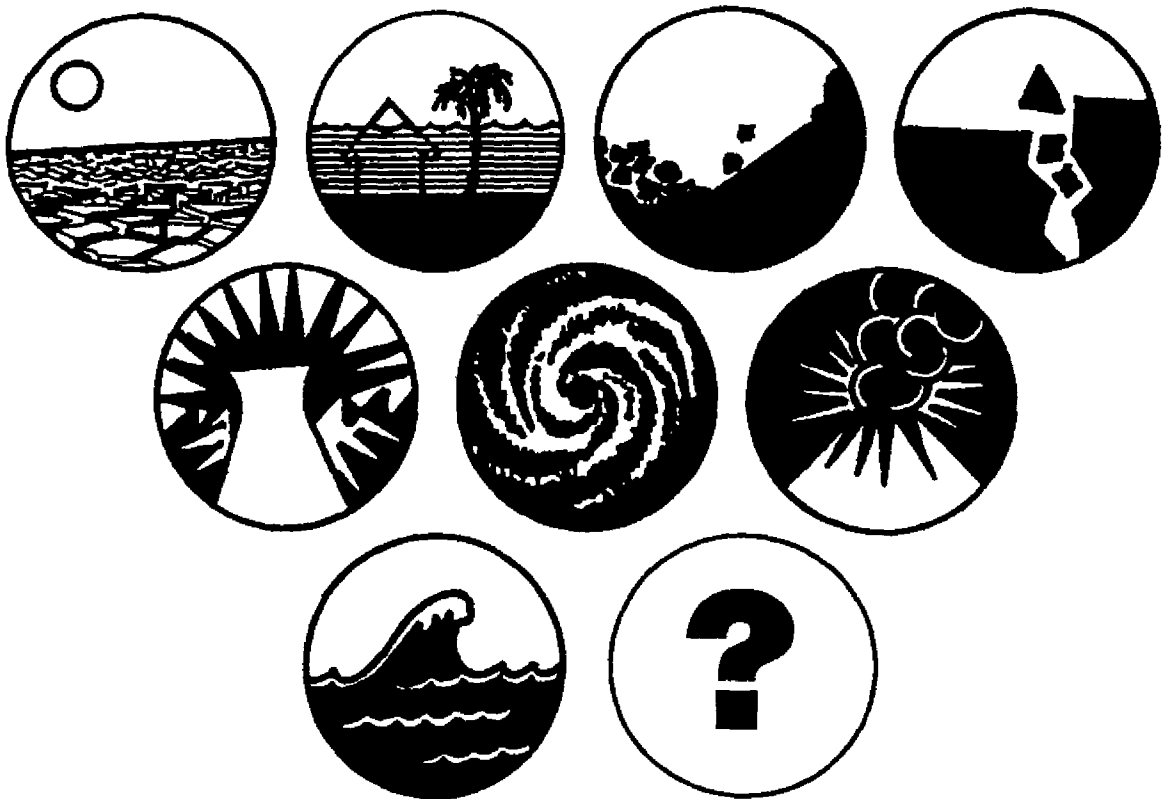
ECONOMIC LOSSES CAUSED BY RECENT NATURAL DISASTERS OF GEOLOGICAL ORIGIN IN LATIN AMERICA AND THE CARIBBEAN

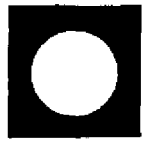
(in millions of 1987 US dollars)

| | EARTHQUAKES | | HURRICANES | FLOODS/ DROUGHTS |
|--------------------------|------------------------|-----------------|------------------------------|--------------------------|
| | Mexico City 1985 | Ecuador 1987 | David & Frederick 1979 | El Niño 1982- 1983 |
| TOTAL LOSSES | 4337 | 1001 | 1057 | 3970 |
| DIRECT LOSSES | 3793 | 186 | 842 | 1311 |
| Capital stock | 3777 | 184 | 506 | 1060 |
| Inventories | 16 | 2 | 230 | 251 |
| Production | 0 | 0 | 106 | 0 |
| INDIRECT LOSSES | 544 | 815 | 215 | 2659 |
| Production | 154 | 704 | 185 | 1284 |
| Services | 390 | 111 | 30 | 1375 |
| SECONDARY EFFECTS | 4050 | 794 | 606 | 0 |
| Public sector finances | 1899 | 397 | 303 | 0 |
| Increased expenditures | 2025 | 55 | 264 | 0 |
| Decrease in revenues | (126) | 342 | 39 | 0 |
| EXTERNAL SECTOR | 8579 | 781 | 464 | 621 |
| Reduction of exports | 1650 | 635 | 167 | 547 |
| Increase in imports | 9075 | 155 | 296 | 74 |
| Disaster-related income | (2146) | (9) | 0 | 0 |



Q. What types of disasters are most likely to affect your country?





VULNERABILITY CAN VARY BASED ON LOCAL ECONOMIC CONDITIONS

- Newly industrializing economies
- Rural/agricultural economies
- Small island economies
- Highly stressed economies



Q. Which sectors of your country's economy are most likely to be affected by disasters?



SUMMARY

- The relationship between disasters and development can be summed up with 4 concepts:
 - development can increase vulnerability
 - development can reduce vulnerability
 - disasters can set back development
 - disasters can provide development opportunities
- Disaster effects vary with the hazard type causing the disaster
- Vulnerability varies between different societies and economies
 - newly industrializing economies
 - rural/agricultural economies
 - small island economies
 - highly stressed economies



PART 2

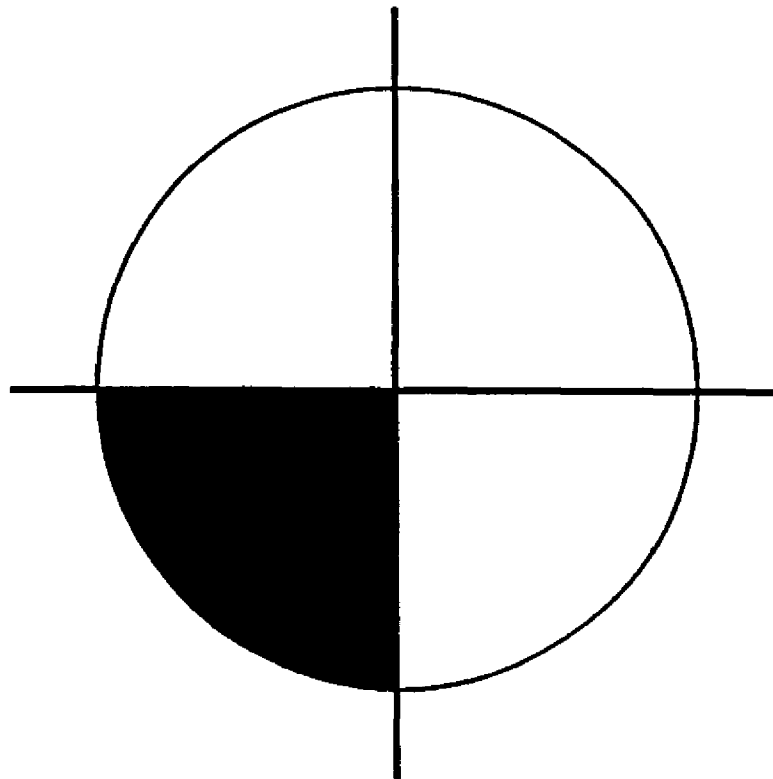
LEARNING OBJECTIVES

- How disasters can impact development programs
- How development programs can increase vulnerability
- How development programs can be designed to decrease vulnerability
- How development recovery programs can be designed to promote development at the same time that they decrease vulnerability



IMPACT OF DISASTERS ON DEVELOPMENT PROGRAMS

- Loss of resources
- Shifting resources
- Negative impact on investment climates
- Disruption of the non-formal sector





Q. Identify at least two large scale development projects that you are familiar with that have been affected by disasters.



Q. Based on your experiences, identify some of the ways that these programs have been interrupted by disasters.

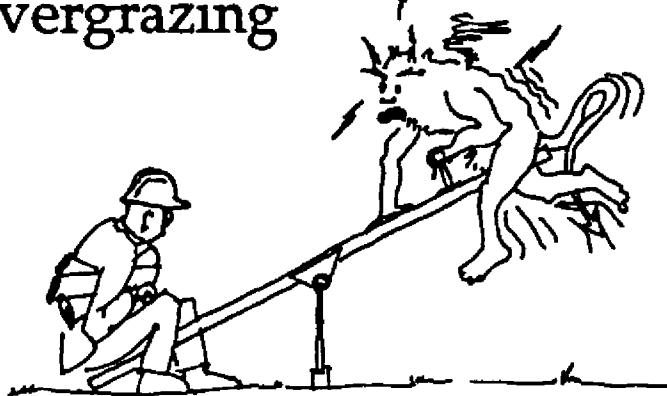


LARGE SCALE DEVELOPMENT PROJECTS

1. Irrigation, rural infrastructure and agricultural services for yield increases
2. Forest resource management projects
3. Restructuring of National Agricultural Credit Bank
4. Integrated Rural Development Projects (IRDP)
5. Improvements in far-access roads, training and diversification of agricultural production
6. Education planning
7. Strengthen of national electric power program
8. Restructuring of enterprises with export orientation
9. Technical and marketing support for industry
10. Malaria control projects
11. Strengthen urban food distribution systems
12. Credit and technical assistance for small enterprises
13. Institution building assistance to ministries of transport
14. Transport sector adjustment and investment credit.

DEVELOPMENT PROGRAMS CAN INCREASE VULNERABILITY

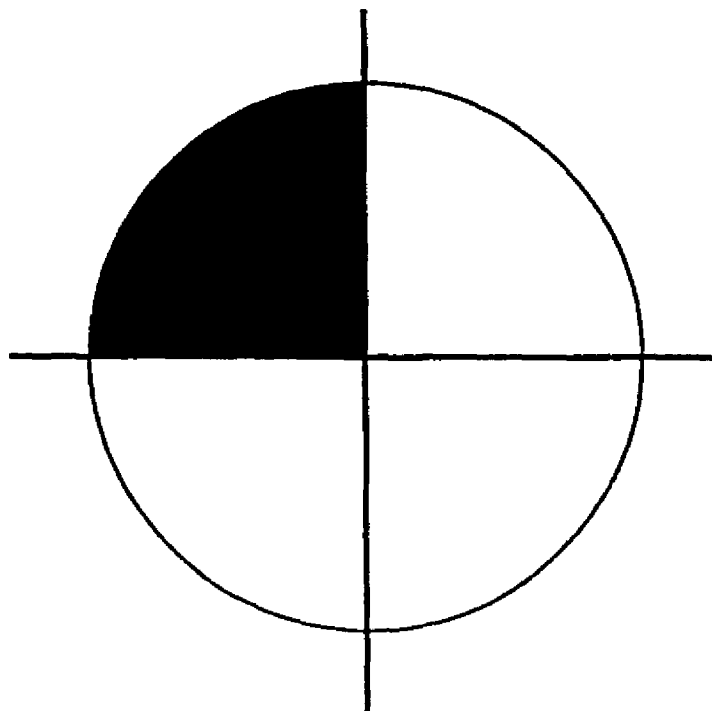
- Urban development—population influx; crowded housing on unsafe sites
- Coastal zone development—increased vulnerability to tsunami and tropical storm
- Transport construction—deforestation and landslides
- Dams and irrigation schemes—increased flooding risk and possible dam failure
- Poorly controlled industrial development—air/water pollution; exposure to toxic materials
- Livestock development—desertification from overgrazing



**SOME DEVELOPMENT PROGRAMS MAY
HEIGHTEN VULNERABILITY**



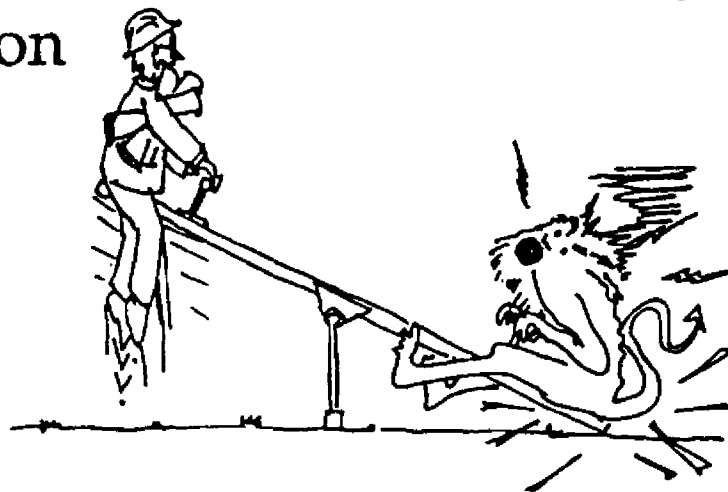
Q. Identify a development program from your personal experience that has increased the vulnerability of the population and describe how and why vulnerability was increased.





DEVELOPMENT PROGRAMS CAN DECREASE VULNERABILITY

- Strengthen urban utility systems and industrial support → increases response capacity
- Incorporate hazard-resistant building techniques → withstands disaster shock
- Building codes and zoning regulations → reduces overcrowding
- Improved administration and training programs → improves preparedness planning
- Reforestation and soil conservation programs → reduces flood risk from erosion



SOME DEVELOPMENT PROGRAMS MAY LOWER VULNERABILITY



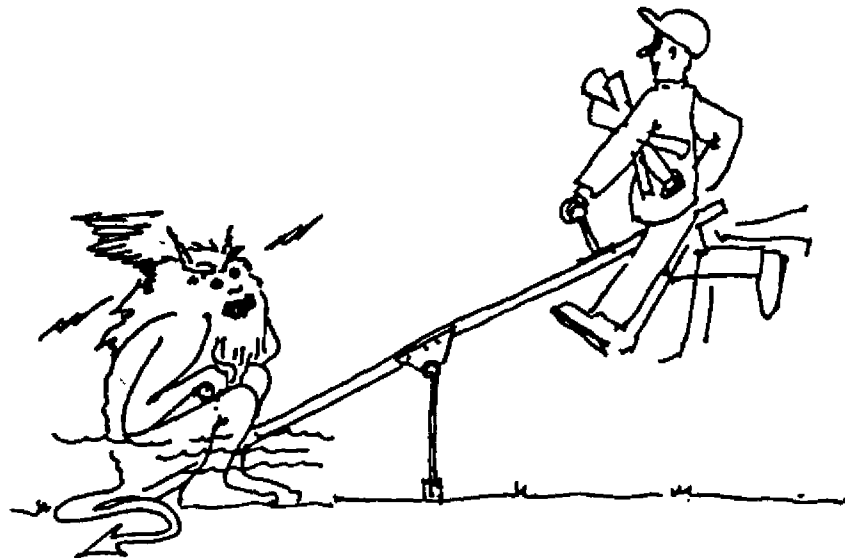
Q. Identify the goals of a specific mitigation project currently in progress, perhaps as part of a regular development project. How was funding obtained for the mitigation component?

How might success be measured?



DISASTERS PROVIDE OPPORTUNITIES FOR DEVELOPMENT INITIATIVES

- Highlights areas of vulnerability
- Creates a favorable political climate for social and economic changes
- Results in injections of capital from donors
- Allows destroyed problem areas to be rebuilt more safely



DISASTERS CAN ELEVATE DEVELOPMENT OPPORTUNITIES



Q. How do disasters affect the willingness of societies to introduce mitigation measures?

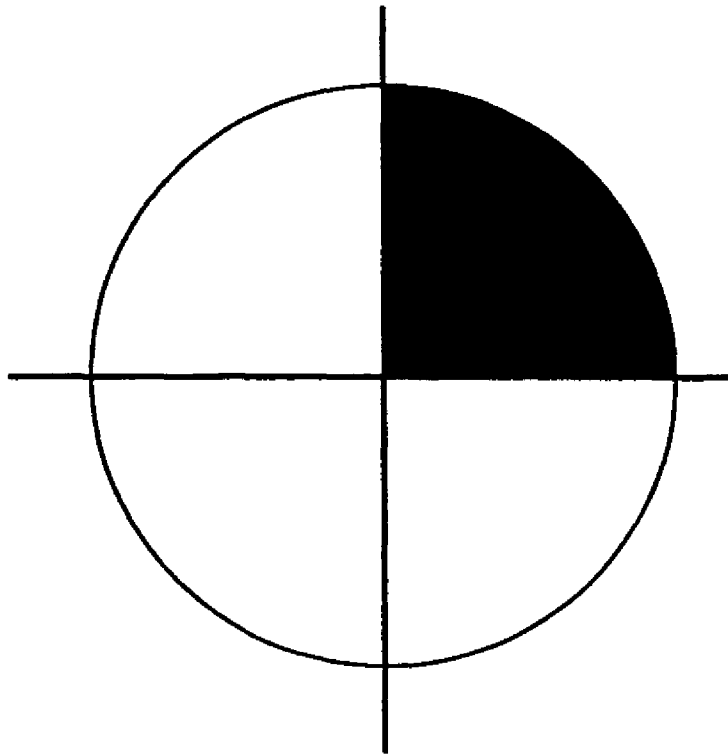


RECOVERY PROGRAMS CAN REDUCE VULNERABILITY AND PROMOTE DEVELOPMENT

- Rebuilding hazard resistant housing through self-help programs
- Loan funds for small businesses
- Technical improvements in “life-line” systems
- Upgrading transport infrastructure
- Telecommunication improvements
- Training programs for new construction workers



Q. Identify two types of recovery programs that would have long term positive implications for development.





SUMMARY

- Disasters inhibit development programs
- Development can increase vulnerability
- Development can decrease vulnerability
- Disasters provide development opportunities
- Recovery programs can promote development and reduce vulnerability



PART 3

LEARNING OBJECTIVES

- Factors influencing decision makers' analysis of mitigation concepts
- Different types of costs, benefits and effects
- Models and tools useful in evaluating mitigation options



COMPARING DEVELOPMENT INVESTMENTS

16 yr.

14 yr.

12 yr.

10 yr.

8 yr.

6 yr.

4 yr.

2 yr.

Pay me later.

Pay me now.

Short term
investments

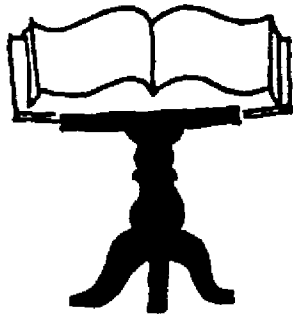
Long term
investments





DEFINITIONS

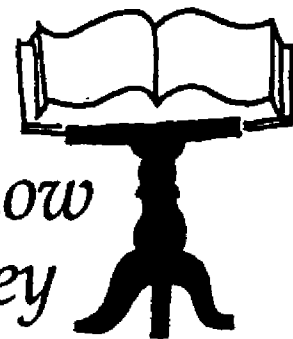
“OPPORTUNITY COSTS”



“The opportunity cost of a resource is the cost of its next best alternative.”

“NET PRESENT VALUE”

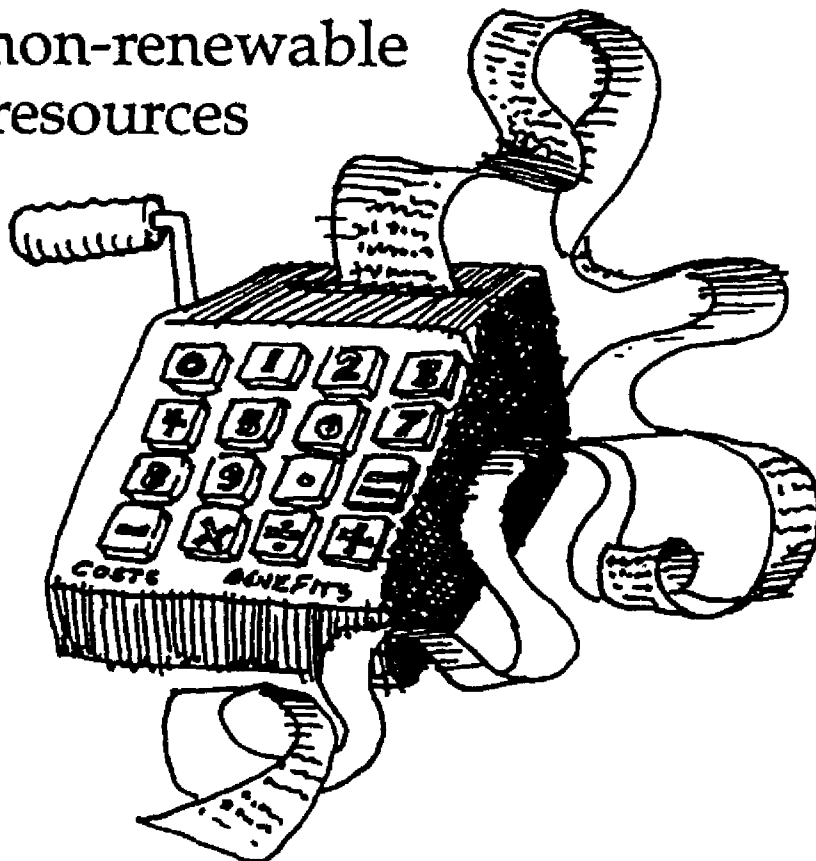
“All things being equal, money available for productive investment now is worth more than money available in the future.”





ESTIMATING LOSSES, COSTS AND BENEFITS

- Direct monetary effects
- Indirect monetary effects
- Direct non-monetary effects
- Indirect non-monetary effects
- Loss of non-renewable natural resources





ADVANTAGES OF FORMAL QUANTITATIVE METHODS

- Provides a standard to compare program options
- Facilitates identifying both anticipated and unanticipated options
- Identifies alternative ways to accomplish the same objective



SUMMARY

- Factors influencing decision makers' analysis of mitigation concepts
- Different types of costs, benefits and effects
- Models and tools useful in evaluating mitigation options



PART 4

LEARNING OBJECTIVES

- How current and potential role for United Nations agency officials and NGOs help countries make the disaster/development connection.
- Why the affected communities need to be involved in designing and implementing programs.



ROLE OF THE UN AND NGOS

- Increasing knowledge and awareness
- Promoting the use of outside and non-traditional resources
- Setting good examples



COLLABORATING CONSTITUENCIES

- Banking
- Insurance
- Private industry
- Economic policy groups
- Local safety councils
- Universities



Q. What are some ways that UN agency officials and NGOs can help a country's leaders promote development in the context of disaster preparedness, mitigation and recovery?



INVOLVING THE AFFECTED COMMUNITY

- Provides good ideas about local felt needs
- Builds support for implementation
- Builds self-esteem and community leaders



Q. Provide an example of a successful attempt to involve potential disaster victims in designing and implementing a prevention or mitigation program.



“ Even the most efficiently managed disaster recovery operation, if it is focused on getting things ‘back to normal’, leaves a society no less vulnerable to natural hazards. Mitigation, on the other hand, produces benefits, in addition to those that are equivalent to the savings of disaster damage, that are completely unrealizable through the recovery option. . .

Thus, disaster mitigation, incorporated into development planning, is one important area for investment to achieve sustainable development.”

— *Mary Anderson*



SUMMARY

- How disasters affect development
- How development affects vulnerability
- How recovery programs can promote development and reduce vulnerability
- How to assess trade-offs in investing in vulnerability reduction
- The role of the UN, NGOs, and the community in exploiting the disaster/development linkage