

DEPARTMENT OF REGIONAL DEVELOPMENT  
ORGANIZATION OF AMERICAN STATES

Natural Hazards Risk Assessment and Disaster Mitigation  
Pilot Project in Latin America and the Caribbean Basin

COURSE ON THE USE OF NATURAL HAZARDS INFORMATION  
IN THE PREPARATION OF INVESTMENT PROJECTS

V O L U M E I I

C O U R S E M A N U A L A N N E X E S

---

The Natural Hazards Pilot Project of the Department of Regional Development receives support from the United States Agency for International Development/Office for Foreign Disaster Assistance (USAID/OFDA). This manual is based on two pilot courses presented by the project in Merida, Venezuela, during 1986 with the collaboration of the InterAmerican Center for the Integral Development of Water and Land (CIDIAT).

**COURSE ON THE USE OF NATURAL HAZARDS INFORMATION  
IN THE PREPARATION OF INVESTMENT PROJECTS**

**VOLUME II: TABLE OF CONTENTS**

---

	<b>page</b>
Table of contents .....	i
Introduction .....	ii

**ANNEXES TO PART I**

1.6.1.- Course Budget Format Sample

**ANNEXES TO PART II**

II.2.1.- Course Evaluation Questionnaires

**ANNEXES TO PART III**

III.2.1.- Handout on the Vicious Cycle of Disasters

III.2.2.- Handout on Natural Hazards and Integrated  
Development Planning

III.2.3.- Handout on Natural Hazards and Integrated  
Development Planning

III.3.1.- Handout on Concept of Ecosystems

III.3.2.- Handout on Natural Goods and Services

III.3.3.- Handout on Natural Hazards

III.3.4.- Handout on Environmental Impacts

III.3.5.- Unit #3 Homework Exercise

III.10.1.- Unit #10 Classroom Exercise

III.12.1.- Unit #12 Classroom Exercise

III.15.1.- Handout on the Economic Planning Process

III.15.2.- Handout on Natural Hazards Trade-Off Analysis

III.23.1.- Handout on Natural Hazards and Project Evaluation

---

## INTRODUCTION

VOLUME II: COURSE MANUAL ANNEXES is intended as a support document and guide to facilitate the preparation and presentation of the course. The material presented was either used in the pilot courses that were presented in Merida, Venezuela, in 1986, or was subsequently added to complement the course manual. In both cases the material responds to the original course objectives and orientation and, therefore, it is expected that they will have to be revised in the context of future course offerings. Likewise, instructors are encouraged to change, delete and/or add material in accordance with their teaching methods.

When using this document attention should be paid to the fact that the numeration of the annexes corresponds to the specific section to which they are related in VOLUME I and, thus, the numeration used is not necessarily consecutive.

A N N E X E S   T O   P A R T   I

**ANNEX I.6.1. - COURSE BUDGET FORMAT SAMPLE**

ANNEX I.6.1.- COURSE BUDGET SAMPLE

Item	Sponsoring Organization	Co-Sponsoring Organization(s)	Total
<b>1. Participants</b>			
1.1. Travel and terminal expenses	-----	-----	-----
1.2. Subsistence allowance	-----	-----	-----
1.3. Medical insurance	-----	-----	-----
1.4. Photocopying allowance	-----	-----	-----
1.5. Postage allowance	-----	-----	-----
1.6. Sub-total	-----	-----	-----
<b>2. Contracted Instructors</b>			
2.1. Honorarium	-----	-----	-----
2.2. Travel and terminal expenses	-----	-----	-----
2.3. Per diem	-----	-----	-----
2.4. Other	-----	-----	-----
2.5. Sub-total	-----	-----	-----
<b>3. Training Center</b>			
3.1. Administrative Costs	-----	-----	-----
3.2. Instructors	-----	-----	-----
3.3. Secretarial support	-----	-----	-----
3.4. Facilities usage	-----	-----	-----
3.5. Basic course material acquisition	-----	-----	-----
3.6. Equipment rental	-----	-----	-----
3.7. Photocopying	-----	-----	-----
3.8. Telephone and telex	-----	-----	-----
3.9. Postage	-----	-----	-----
3.10. Local transportation	-----	-----	-----
3.11. Course announcements and promotion	-----	-----	-----
3.12. Course summary publication	-----	-----	-----
3.13. Entertainment	-----	-----	-----
3.14. Other	-----	-----	-----
3.15. Sub-total	-----	-----	-----

ANNEX I.6.1.- COURSE BUDGET SAMPLE (Cont.)

Item	Sponsoring Organization	Co-Sponsoring Organization(s)	Total
4. Field Trips			
4.1. Transportation	-----	-----	-----
4.2. Food	-----	-----	-----
4.3. Lodging	-----	-----	-----
4.4. Fees and permits	-----	-----	-----
4.5. Other	-----	-----	-----
4.6. Sub-total	-----	-----	-----
5. Total	-----	-----	-----

Notes:

ANNEXES TO PART I I



**ANNEX II.2.1.- COURSE EVALUATION QUESTIONNAIRES**

\*\*\*\*\* FIRST COURSE EVALUATION \*\*\*\*\*

INSTRUCTIONS: FILL IN THE BLANKS ASSIGNING GRADES FROM 1 TO 5 USING THE FOLLOWING SCALE:

- 1 - POOR            2 - BELOW AVERAGE            3 - AVERAGE  
 4 - GOOD            5 - EXCELLENT

** FIRST AND SECOND WEEK UNITS **	INSTRUCTOR/ LEADER	SUBJECT RELEVANCE	LECTURER COMPETENCE
COURSE INTRODUCTION	(type-in name)		
NATURAL HAZARDS AND THE PROCESS OF INTEGRATED DEVELOPMENT PLANNING	" "		
ENVIRONMENTAL MANAGEMENT AND NATURAL HAZARDS	" "		
HYDROLOGIC AND ATMOSPHERIC HAZARDS	" "		
FLOOD HAZARDS	" "		
INTRODUCTION TO GEOLOGIC HAZARDS	" "		
SEISMIC AND VOLCANIC HAZARDS	" "		
PRESENTATION OF COURSE CASE STUDY (I)	" "		
TECHNICAL FIELD TRIP I	" "		
MASS-MOVEMENT HAZARDS	" "		
LAND USE AND SOIL DEGRADATION HAZARDS	" "		
MULTIPLE GEOLOGIC HAZARDS AND LIFELINE NETWORK MAPPING	" "		
NATURAL HAZARDS INFORMATION SYSTEMS AND SOURCES	" "		
PRESENTATION OF COURSE CASE STUDY (II)	" "		

GENERAL COMMENTS:

-----

-----

-----

-----

-----

-----

-----

-----

\*\*\*\*\* FINAL COURSE EVALUATION \*\*\*\*\*

INSTRUCTIONS: FILL IN THE BLANKS ASSIGNING GRADES FROM 1 TO 5 USING THE FOLLOWING SCALE:

- 1 - POOR            2 - BELOW AVERAGE            3 - AVERAGE  
 4 - GOOD            5 - EXCELLENT

** THIRD AND FOURTH WEEK UNITS **	INSTRUCTOR/ LEADER	SUBJECT RELEVANCE	LECTURER COMPETENCE
ECONOMIC PLANNING AND NATURAL HAZARDS	(type-in name)		
MULTICRITERIA ANALYSIS AND INTEGRATED DEVELOPMENT PLANNING	" "		
GENERAL ECONOMIC ANALYSIS THEORY	" "		
PRESENTATION OF COURSE CASE STUDY (III)	" "		
PROJECT FORMULATION AND NATURAL HAZARDS	" "		
REVIEW OF PROBABILITY THEORY	" "		
TECHNICAL FIELD TRIP II BRIEFING	" "		
TECHNICAL FIELD TRIP II	" "		
NATURAL HAZARDS AND PROJECT EVALUATION	" "		
COURSE CASE STUDY WORKSHOP	" "		

GENERAL COMMENTS:

-----

-----

-----

-----

-----

-----

-----

-----

-----

-----

\*\*\*\* FINAL COURSE EVALUATION \*\*\*\*

*** OVERALL EVALUATION CRITERIA ***	CODE	GRADE
1. Coordination of the course:		
a. Leadership effectiveness	1	
b. Assistance to participants	2	
2. Different teaching methods:		
a. Lectures	3	
b. General talks	4	
c. Technical field trips	5	
d. Film / videos	6	
e. Participants case studies	7	
f. Workshop case study	8	
g. Classroom exercises	9	
h. Homework exercises	10	
3. The quantity of information presented:	11	
4. The quality of information presented:	12	
5. The quantity of resource materials and bibliography:	13	
6. The quality of resource materials and bibliography:	14	
7. The course work schedule:	15	
8. Quantity and quality of audio-visual equipment and systems used:	16	

*** OVERALL EVALUATION CRITERIA ***	CODE	GRADE
9. The balance of course components between:		
a. Theoretical and practical sessions	17	
b. Individual and group work	18	
10. The working / living conditions:		
a. Work environment	19	
b. Accommodations	20	
c. Meals	21	
11. Number of course participants:	22	
12. Balance of course participants:		
a. Professional fields	23	
b. Levels of working experience	24	
c. Countries (or regions)	25	
13. Assessment of personal performance in the course:		
a. Assimilation of materials	26	
b. Contribution to the course	27	
c. Participation in class	28	
d. Participation in field trips	29	
e. Participation in group work	30	

A N N E X E S   T O   P A R T   I I I

ANNEX III.2.1.- HANDOUT ON THE VICIOUS CYCLE OF DISASTERS

ANNEX III.2.1

THE VICIOUS CYCLE OF DISASTERS

