

- the organizational basis of the schemes.
- the limitations and adequacies of the implemented schemes.

### 3. Preparation of Action Research process in Representative Urban Communities:

The possibility of achieving a fruitful process of action research at the community level relies on the level of preparation of the research group in terms of their scientific knowledge base, access to methodological instruments and established contacts and work relationships with community leaders or representatives.

The preparatory stage for the action research process must satisfy these basic requirements.

#### a. Selection of Urban Communities:

The typology of urban communities established in Phase II will be the basis for the selection of urban communities to be included in the research process.

The substantive criteria for the selection process will include:

- representativity as regards metropolitan and secondary cities.
- representativity as regards principle types of environmental risk factors (flooding, landslides, fluvial contamination, seismic, etc.).
- representativity in terms of experience with environmental risk (communities with experience of major impacts; recurring but low scale impacts; or with no previous experience).
- levels of consolidation of urban communities and locational characteristics.

The importance of these criteria relates to the basic hypothesis that the diverse characteristics of urban communities have an important influence on the levels of consciousness, motivations for change and capacity to search for and implement preventive strategies. Moreover, the differing characteristics will condition the type of approach taken through an action research process in order to achieve the basic objective of consciousness raising and a change in the prevailing knowledge base of the community and its perceived need and capacity for instrumenting changes.

The need to incorporate distinct types of urban community in the research process derives from the prospective nature of the study. Thus, beyond the immediate achievements of the project in the selected urban communities, there is a need to derive information and design methodological frameworks, which are relevant to future research and community capacitation schemes in other urban contexts.

The achievement of a balance and representativity of the distinct urban community contexts can only be achieved (for reasons of cost and time) considering the sum of the four countries and eight urban centres included in the project. Representativity in each country is clearly impossible within the time framework of the project and resource availability.

The project proposes the inclusion of up to four urban communities in each country. These will be incorporated in a staged or staggered process which involves two communities in a first stage (Phase IV) and two communities in Phase V. This strategy will permit i) a learning process on the part of the research group; ii) the use of interactive discussion and experience interchange between urban community representatives whereby those incorporated in the first stage "collaborate" in the second stage community studies. The importance of peer group experiences can not be underestimated in the action research process.

Three criteria are of clear importance in the final selection of communities and in terms of their incorporation in Stage 1 or 2 of the process.

Firstly, the communities selected must have an established organizational base with community representation. This does not necessarily have to relate directly to the environmental risk problem as such. Possible existing organizations may relate to overall community development, health or housing, security or global environmental issues etc. The key factor is the existence of an organizational base where the concerns can be directly related to the problem of environmental risk.

Secondly, preference should be given, in the case of equally relevant "competing" urban communities, to those where there has been a previous work experience on the part of the NGO institutions participating in the project or sister organizations. This will diminish the problems associated with the motivating of community participation in the project.

Thirdly, the first stage work should ideally include communities with a recent history of a major impact event. This relates to two considerations:

- disasters as such clearly expose or bring to the surface existing family and community vulnerabilities and capacities. Under such circumstances the motivational and experiential base of the community to search for change is generally high, as are the options for action research.
- the lessons to be learned in such contexts can be systematized in favour of second stage work with other urban communities where disaster is latent and the motivational base or experience framework less developed. The opportunity also exists in such a staged process for representatives of affected communities to participate with non affected communities, transferring knowledge and experience.

The incorporation of communities with a different experiential framework is of critical importance in terms of the development of methodological approaches to community work (research, training, education, etc.). Different approaches are required in different contexts. The author's previous experience with capacitation schemes with community leaders in C. Neilly, Golfito and Limon (Costa Rica) revealed the very different motivational bases and methodological needs when dealing with communities affected by recent disasters (Neilly and Limon) and those in which the possibility is latent (Golfito).

b) Preparation of Scientific Base for Action Research at the Community Level (see Objectives a ii, iii, iv; b i, ii, iii).

The research groups clearly require a firm scientific knowledge base as regards the communities to be included in the study, including aspects related to environmental risk and human vulnerabilities. Based on the preliminary indicative information gleaned during the Phase II work, the research group will proceed to gather and systematize more detailed information on environmental risk factors and causalities and on social structure and organizational aspects at the community level (see 2 a above). This information should include all available scientific/technical instruments related to risk mapping or zoning. In addition to the aspects considered in section 2 a detailed information should also be systematized on:

- ongoing changes in the global and local urban dynamic with potential impacts on environmental risk.
- potentially relevant community resources for disaster prevention and response.
- existing legal precepts and structures of potential or direct relevance to the community in terms of environmental management and risk reduction (land use zoning, environmental regulations, security obligations of local or national government agencies, dictates on urban plans etc.).

- organizations related to disaster management at a local regional or national level.
- existing disaster management activities (in prevention, early warning, evacuation, etc.).

The global process of data collection and synthesis should be undertaken in close coordination and communication with community representatives; and, where possible, involve the community in ongoing tasks (e.g. in the collection of insite information via rapid questionnaire surveys or simple observation techniques).

c. Preparation of Methodological Instruments for Facilitating the Action Research process (Objective c i).

An adequate interrelationship and communication process with the community and it's representatives requires the use of methodological instruments which facilitate this process.

Based on the systematization process of methodological options undertaken by the Regional Project Coordinator in Phase II, the national teams should prepare schemes for the presentation and accessing of information to communities (e.g. vulnerability and capacities matrixes; problem-resource availability-solution matrixes; risk mapping techniques).

4. Human Resource Requirements:

Phase III activities require the following human research resources:

- a. Two full time equivalent researchers combining expertise in the physical and social sciences.
- b. Two full time research assistants, combining expertise in the physical and social sciences.
- c. Contracted services in cartography, and computarized data base construction.
- d. Advisor in participative action research techniques and methods.

D. PHASE IV: Action Research at the Community Level (Stage I) (5 months). (Objectives aii y iv; bi, ii, iii, cii).

1. Third Regional Research Workshop:

Phase IV will commence with a third regional workshop with the presence of the regional coordination groups, principle national researchers, action research advisor and invited external

specialists. The objectives of the meeting will relate to the discussion of Phase III results and the discussion and modification of Phase IV/V objectives and methodology.

## **2. The Research Process:**

The process of research will involve work in two urban communities (metropolitan city and secondary city) in each country.

The basis of the process will be the "permanent" interaction between the formal research team and community representatives or groups in an ongoing process of local level capacitation or training.

This process will involve the following elements:

- a. the continuous confrontation of "formal" scientific knowledge (researchers perspective) with popular or local experiences, conceptions and knowledge (popular culture) in a process which raises consciousness, provides explicative elements and reveals possible activity or action frameworks.
- b. the permanent movement between analysis and diagnosis and the search for problem solving activities or instruments related to environmental risk and management (structural, behavioural, organizational, legal, political, etc.).
- c. the accessing to the community of analytical and evaluation techniques and information bases which permit a continuing activity in environmental analysis.

The interaction process will be promoted by the systematic incorporation of experts in environmental, legal and political, and organizational aspects. Moreover, the process will be enriched by:

- i. intercommunity participation, whereby representatives of the two communities involved in the research can interchange experiences; and, representatives from non study communities with relevant experiences in prevention and mitigation will be invited to participate.
- ii. the possibility that representatives of communities or private sector groups which directly or indirectly (consciously or unconsciously) contribute to the problem of environmental risk, participate in the ongoing process. Local government and state agency representatives will also be invited to participate in determined moments of the research process.

#### Human Resource Requirements:

- a. One full time equivalent researcher (two part time) combining physical and social science expertise.
  - b. One full time equivalent research assistant.
  - c. Consultancy services in specialized physical science, legal, organizational and technical areas (risk mapping, etc.); specialist in action research techniques and methodologies.
- E. PHASE V: Action Research at the Community Level (Stage 2) (5 months).

Based on the experience of Stage 1 results, Stage 2 activities will follow the same basic guidelines, adapting the methodological components according to the experience gained.

The changed experiential context of the communities to be included in Stage 2 (communities with no experience of a major disastrous event) will undoubtedly demand the introduction of new elements in the consciousness raising and motivational aspects of the research methodology.

#### Human Resource Requirements:

See Phase IV requirements.

- F. PHASE VI: Final Preparation of National Reports: (3 months)

These will systematize the formal and participatory research-action results; and, systematize the methodological lessons and techniques used in the course of the project.

The regional coordination group will advance in the preparation of the final regional technical report (Objectives, concept, theory and method; urban typologies).

These activities will be preceded by a Final Regional Research Workshop. In this workshop the overall results of the research process will be discussed in substantive and methodological terms. Discussion of the final formats and contents of National reports will also be undertaken.

- G. PHASE VII: Preparation Final Regional Technical Report (3 months).

5. INSTITUTIONAL FRAMEWORK:

- a. The project will be promoted and coordinated from the Secretariate General of the Latin American Social Sciences Faculty (FLACSO), San José, Costa Rica.
- b. The research and capacitation process will be carried on by Non Governmental Organizations in each country, involved with development projects and working primarily with grassroots organizations and communities.

Costa Rica: Alternativas de Desarrollo and Consejo de Iglesias para las Emergencias y Reconstrucción (CIPER).

Honduras: Centro de Promoción para el Desarrollo (CEPROD).

El Salvador: Fundación Nacional para el Desarrollo (FUNDE).

Guatemala: FLACSO and NGO to be identified.

- c. The selection of these NGO structures relates to the need for previous experience and commitment to community work, their excellence and level of consolidation, and their perspectives and commitments to continued activities in the disaster prevention area once finalized the present project.

6. HUMAN RESOURCES:

- a. Human resource needs are outlined at the end of each research Phase description included in Section 4.
- b. The conformation of the national research teams requires an adequate combination of expertise in physical and social science disciplines.
- c. In the case of Costa Rica, the global regional coordinator and assistant will form part of the national team on a half time basis from Phase III through Phase VI. During Phase I, II and VII they will be employed full time on regional coordinating activities as delineated in the Phase descriptions.

7. REGIONAL COORDINATION:

The overall tasks of regional coordination and the support to national teams will be achieved through:

1. The continual provision of bibliographical materials and conceptual and methodological syntheses on relevant aspects of the project.
2. The celebration of four regional workshops (beginning Phase II, end of Phase II, end of Phase III and end of Phase V).
3. Regional coordinating trips (middle Phase II, middle Phase III, end Phase IV and middle Phase V).
8. OTHER CONSIDERATIONS:
  - a. The project will establish permanent contacts and interchanges with members of the Latin American Social Studies and Disaster Prevention Network. Regional research workshops will be attended by selected experts from the network.
  - b. The project will stimulate the formation of human resources in disasters research through the incorporation of undergraduate of masters students undertaking thesis.



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