International Course for Primary Health Care Managers
at District Level in Developing Countries

INTEGRATING PRIMARY HEALTH CARE AND
PRIMARY ENVIRONMENTAL CARE
IN THE HEALTH DISTRICT OF PAU DA LIMA
(SALVADOR DA BAHIA, BRAZIL)

FINAL REPORT
Field-work in Salvador da Bahia (Brazil)
August-October 1990

by
Pierpaolo de Colombani
Hakam Mustafa Irshaid
Cristina Maria Meira de Melo

Rome 7.12.1990
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1. EXECUTIVE SUMMARY

Poor urban areas in the developing world are characterized by a variety of environmental problems that cause untold misery and deprivation, millions of preventable diseases, disabilities and deaths, profound ecological change and negative consequences on the economy of the affected countries. These problems are primarily felt by low-income, relatively recent, "marginal" urban residents. The "environment of poverty" in which they live most urgently calls for attention and action. Within the developing world, Latin American countries are characterized by the highest proportion of urbanized population and, within urban areas, by the highest proportion of "marginal", squatter citizens. Within Latin America, Brazil is a show-case of dramatic extent and significance.

Two premises stand at the basis of our work. The first is that the problems of the "environment of poverty" are not likely to be solved by capital-intensive governmental interventions in the next years or even decades. The second is that these problems can fortunately be greatly reduced at a relatively modest cost by organizing interested stakeholders - in particular the affected local communities - and using existing resources more effectively. Primary Environmental Care (PEC) is a strategy to achieve these conditions. It is based on three integrated components: a. protecting the environment; b. meeting needs; c. empowering communities. The strategy has a variety of points of contact and potential synergy with the Primary Health Care (PHC) strategy.

The general objective of this study is to identify and assess potential actors, conditions, means and tools to integrate PHC and PEC in the health district of Pau da Lima (Salvador da Bahia, Brazil). In order to achieve this objective we have explored the main PEC problems affecting the district and performed three case studies of local squatter communities. The case studies - carried out with Rapid Appraisal methods - have focused on assessing the local main PEC problems, the felt priorities and basic interests in PEC, the instances and conditions of community action in PEC and the forms and conditions of community organization. Data have been collected by secondary review, field observation, focus group meetings, ranking exercises, structured interviews with key-informants, life history interviews, etc. We have also identified a number of local PEC stakeholders, starting with the management of the health district of Pau da Lima (DSPL), the Italian NGO - currently supporting the operation of DSPL (AISPO) - and the Italian Coordination of the Health Cooperation in Brazil. Other identified stakeholders included local organizations interested in legal,
environmental, health and organizational activities. We have carried out structured interviews with all the stakeholders to assess interests, current and past activities and possible contributions and conditions to support PEC activities and integrate them with the current PHC activities in the district. The entire project has focused on collecting qualitative rather quantitative data, and the data is reported with the support of conceptual matrices, drawings, maps and pictures.

PEC problems affecting the health district of Pau da Lima and, in particular, its squatter population, are many and interconnected. Water supply is poor in quality and quantity and often obtained with illegal means, local food production is limited for lack of land and erosion of top soil, housing conditions are hazardous and inadequate, basic sanitation is often totally absent, and so are family latrines and garbage disposal facilities. Community infrastructures such as paved pathways, drainage systems and public lighting are lacking, while living quarters are often set in hazardous conditions (high risk of floods, landslides, fires). These unsafe and depressing aspects of the physical environmental are worsened by a number of problems in the social environment, including lack of land tenure (fostering insecurity and lack of interest in bettering the physical environment), widespread poverty and lack of skills, scarcity and poor quality of social services, poor employment opportunities, alcoholism, drug addiction and social violence.

The problems identified in our study are known and understood by the squatter inhabitants who - interestingly - did not perceive any clear distinction between environmental problems related to physical and social aspects in their environment. Positive aspects of the local environment were also acknowledged. Among the problems felt more strongly is the lack of land tenure in the most recent communities, and the lack of sanitation in the oldest community examined. It was observed that women, men and young people in the same community generally agree on the same priority problem. People tended to focus on immediate needs vs. long-term concerns, and on public vs. private responsibilities. Despite the fact that the problems are well known there was a lack of awareness about how the community can act to solve them.

An ample spectrum of motivations underlies the recognition of problems, and among those we found that the interconnectedness of issues and the desire to improve the quality of life are widely represented. It can also be expected that social upgrading and avoidance of social conflicts motivate people to solve problems that apparently affect only the physical aspects of their environment.

The PEC activities carried out by our case-study communities comprise mostly petitions and vindications to authorities or illegal connections with water and electricity supplies. Lack of internal cohesion, managerial capacities, technical skills, economic
means and knowledge of their specific rights and responsibilities have slowed-down or impeded different kinds of activities. The establishment of community organizations has facilitated some of the actions mentioned above, but community empowerment is far from being a reality and people do not seem to be confident to be able to achieve results by themselves and mostly wish to be guided and supported from outside.

The integration of PHC and PEC in Pau da Lima requires a strong partnership between the DSPL and local organized communities. Community members are willing to formalize their associations, be trained in a number of skills and carry out PEC activities. They are very interested in overcoming their condition of illegality (land tenure problem) and this could be a strong entry point to work together with them. The DSPL is ready and willing to support them and stimulate their participation in outreach and extramural activities. Moreover, the district is potentially served by a number of people and institutions with specific expertise and willingness to support PEC activities in marginal communities.

The above results led us to formulate a number of operational recommendations that wish to indicate how the partnership between DSPL and organized communities could proceed.

We recommend to the DSPL to increase the amount of resources dedicated to extramural, preventive activities and to open a "PEC window" service (Servico de Apoio Ambiental para Comunidades) acting as a formal point of reference for Primary Environmental Care in the district. The service would provide stimulus and assistance to local communities in establishing formal Resident Associations, would assist them in formulating community diagnoses and PEC micro-plans with the help of Rapid Appraisal and Microplanning methods, and provide a liaison between Resident Associations, available resources in the district and competent authorities. The "PEC window" service could also set up specific information campaigns on PEC issues of particular relevance.

We recommend to AISPO, project Pau da Lima, to provide technical and financial support in carrying out a detailed feasibility study of the "PEC window" service and, conditioned to the results of such study, to further support the service and assist local associations in the development of training courses on specific organizational and PEC practices.

We recommend to the Coordination of Italian Health Cooperation in Brazil to stress the value of extramural PEC activities in the work of Brazilian health districts assisted by Italian Cooperation, to include related thematic subjects in its documentation center and to promote the sharing of related experiences via workshops, training courses, audio-visuals, etc.
Finally, we recommend to the case-study communities to formalize their organization as Resident Associations, to develop some autonomous action to solve common problems without external support and to establish closer contacts with the DSPL, including an increased participation in DSPL-run activities.

Given the results of our study, the above recommendations appear reasonably feasible. Some adjustments of standard Rapid Appraisal and Microplanning methods may be needed to fit the local situation (low levels of literacy, difficulty to relate to transect drawings, etc. Difficulties can also be anticipated because of the instable political and economic situation in Brazil and the likely worsening of ecological conditions in the already stressed marginal urban environments.

Alaide Souza (Miuda) /woman/43 years old/resident of the squatter settlement of Baixa da Bica (Salvador, Brazil).

Life history

- Was born in 1947 in Jequié (Bahia, Brazil). Her father had a small farm in Maracas (a small city near Jequié) and cultivated the land for family consumption and to sell the products in an open market. As it is common in the Brazilian countryside all the family worked together in the fields. They also raised a few cows, oxes and goats.
- Is illiterate. Went to school only for a few months and does not know how to sign her name.
- In 1950, when her father got sick, her family had to sell the small farm, moved to Jequié and bought there a smaller lot of land. The family continued to work together selling some products in the open market.
- When she was 6 years old she went to live with a family and did small domestic work. One year later her father built a small house and she moved back with her family. Her mother still lives there.
- At age 14 she got married and gave birth to a daughter. Her husband abandoned her 2 years later. She and her daughter went back to live with her family.
- When she was 18 she met her present husband (Antonio) and moved with him. With Antonio she had 14 children (5 born in Jequié and 9 in Salvador) but only 9 are still alive (the others died in infancy or childhood).
- In 1969 her husband decided to move to Salvador to work (odd jobs on a limited time contract) with a construction company (it was easier to find a job in Salvador).
- In 1970 she and the children joined Antonio in Salvador. They lived in Piraja, a suburban, poor quarter of Salvador in a rented house. She did the domestic work, took care of the children and washed clothes to earn some money to help her husband.
maintaining the family. Every 2 years she moved to a different places (Sao Caetano, Formiga) and every time the quality of the living arrangement got worse (cheaper and cheaper places).

- In May 1977 her husband got sick, could not work anymore and it was impossible to pay any rent. The family moved to the squatter settlement of Baixa da Bica. Miuda bought a small lot from Mr. Bahia, an old squatter in this area. Before moving to the place she was told by friends that the settlement was illegal. She has a document signed by Mr. Bahia but not a legal land tenure. When she asked Mr. Bahia if he was the landlord he told her that he was not, but he had weeded the lot and for this reason he deserved her money.

- After she and her husband filled the lot (there was a swamp and lots of mud) they built a earth house ("casa de taipa").

- In 1980 she took the initiative to claim some public support to Baixa da Bica and a politician advised her to go to the Centro Social Urbano to get help. She and a few other residents made a petition to municipal authorities to be connected with electricity supply but it only happened 3 years later. She has no connection with legal water supply because there is a private spring on "her" lot.

- In 1983, after strong rains, floods and constant water infiltrations, her house crumbled down. With the support of a local NGO (PROCAB) she and other residents asked the municipality to help rebuilding their houses. They initially got concrete assistance only from PROCAB and - months later - some materials also from the municipality. Now she has a house built with bricks (4 rooms) but with an earth pavement. The infiltration persists and they have to drain water around the house almost every day. She works washing clothes for other people, her husband gets sporadic jobs.

- Presently, she lives together with 4 sons and daughters and her husband. The other 5 got married and are all living in squatter settlements. She is a grandmother of 8 children but still has a 6 year old daughter.

- She thinks the life in Salvador is better than in the country because the people can work and earn some money; her children studied (she gave this information with pride).

- She likes to live in Baixa da Bica and thinks she will leave the area only if obliged. Yet, she feels insecure - even after have been there for 13 years - because she hears frequently about possible removal of the residents by the municipality.

- She says that a lot of families have left the area but some of them had to came back due to the economics difficulties they encountered outside the squatter area.

- Her life is hard, she feels sick and tired, and looks like a very old woman. She refers about her marriage as a great cross to carry, given to her by God, and that the same applies to her own life.
2. BACKGROUND

2.1 Problem Statement

Poor urban areas in the developing world are characterized by a variety of environmental problems, with extremely serious health and economic consequences. These problems - from inadequate provision of water supply and sanitation to widespread pollution, from precarious housing to dangerous working conditions, from high risk of natural disasters to depletion of local resources - are causing untold misery and deprivation and millions of preventable diseases, disabilities and deaths (Rossi-Espagnet 1984; Halberstein 1985; Harpham et al. 1988; WHO 1988; Hardoy et al. 1990). The same problems are also causing profound and often irreversible ecological changes with a potential devastating impact on the economy of the affected countries (Adegbola 1987; Brown and Jacobson 1987; WCED 1987; Hardoy 1988; Hardoy and Satterthwhite 1989).

Although these phenomena concern all inhabitants of a given urban center and may even end-up affecting a whole country, most urban environmental problems fall on the shoulders of low-income, relatively-recent, "marginal" residents\(^1\) (see Rip et al. 1977; Leonard 1989 and, for the specific case of Brazil, Oya-Sawyer 1987). These people live in the "environment of poverty" (Hardoy and Satterthwhite 1989) that most urgently calls for attention and action. Even a superficial consultation of the specialized literature shows that the health problems of marginal residents in Third World cities are extremely severe (infant mortality, for instance, is of the order of 200 per 1,000 and can be five times higher than the corresponding rate for the better-off quarters in the same town), related to a complex web of causal factors (from unsafe environmental conditions to lack of social services, from poor use of existing services to socio-economic instability) and likely to worsen with time (population growth, progressing urbanization, debt crisis, etc.).

Within the developing world, Latin American countries are characterized by the highest proportion of urbanized population and, within urban areas, by the highest proportion of squatter citizens (Leonard 1989). Brazil - no exception to this phenomenon -

\(^{1}\) We refer the term "marginal" to economic and political power and social status. In this sense "marginal" residents comprise illegal residents (squatters), residents with very limited assets and opportunities, residents who lack the safety net of public welfare or political connections, residents without a well-structured network of community solidarity and support, etc.
is a prime show-case of rural and urban environmental problems of dramatic extent and significance.

2.2 Salvador da Bahia

According to a political and administrative division, Bahia and other 8 states are included in the tropical Northeast region, one of the poorest of Brazil. Salvador, the capital of the state of Bahia, is a very lively town, facing a magnificent natural gulf and bordered by luxurious tropical vegetation. It is also a town with unique historical traditions, as main entry-point in the Americas of slave cargos from Africa under the Portuguese domination (1549-1823). This background is reflected in the ethnical composition of the city inhabitants, for the most part of African descent.

During the last three decades Salvador, as other large cities in Brazil and South America, experienced a very rapid growth of population. The 700,000 inhabitants registered in 1960 in the Regiao Metropolitana de Salvador (RMS) increased in 1980 up to 1,770,000 and 96% of these people were urban residents (Kraychete 1986). In 1987, the number of RMS inhabitants has been estimated at 2,254,420 (IBGE 1988). Accompanying the process of urbanization, Salvador has increasingly suffered from severe environmental stress and degradation (IAB 1977; Mattedi 1979). Denunciations of inadequate housing, water supply, sanitation and garbage disposal, work accidents and descriptions of congested traffic, air and water pollution, fires, floods or landslides can be read daily on local newspapers (Annex 1). Even the beaches bordering the town, traditional meeting point of the youth for surfing performances and main recreational environment of the poor, are heavily polluted by untreated sewage.

At the beginning, migration from rural areas was the main cause of the growth of the urban population (Sarmento 1982). The phenomenon was related to the crisis of agricultural employment in the state of Bahia and the opening of 3 industrial poles very

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2 A metropolitan region is defined as a large concentration of population distributed around a main city and socio-economically connected with it.

3 "Urbanization" is a process by which an increasing proportion of population comes to live in urban centres. This is different than urban growth because if the rural and urban population are both growing at the same rate, there is urban growth but not necessarily growth in the proportion of people living in urban centres. Each government defines what size and number of inhabitants identify an "urban center" in the context of its own country (Hardoy and Satterthwhite, 1988).
close to Salvador (Centro Industrial de Aratu, Complexo Petroquimico de Camacari and Porto Seco Piraja). This industrial development attracted people wishing to find a factory job or a formal/informal occupation in collateral activities (construction, commerce, services, etc.).

In the last years, however, natural population increase has become more relevant than migration from rural areas (Kraychete 1986). The phenomenon has been accompanied by internal movements of population towards the periphery, forced by both economic speculations in the old city centre (in particular in the areas facing the ocean), and destruction of old settlements by floods, fires and other disastrous events. Presently, the city of Salvador is expanding around a relatively new economical core sited at the confluence of two main roads (the BR 324 and the Avenida Paralela) in the northern periphery (Annex 2a). It comprises the Estacao Rodoviaria (bus station), the Shopping Center Iguatemi and the Centro Administrativo da Bahia (Simoes 1985).

This new periphery of Salvador developed since 1977 via a large number of mass housing schemes (conjuntos habitacionais and loteamentos) built with the support of the National Housing Bank (Batley 1988). The schemes were designed to provide housing facilities for the low-income groups but in practice only middle-class groups received a real benefit (Cortijo 1975). Squatter settlements (invasoes) of internal and external migrants grew up very fast around the original housing schemes, (see Fig.1, page 34) in absence of any plan and provision of services. For many years the inhabitants of these invasoes have been struggling with poverty, environmental degradation and extremely hard life conditions.

The area between the main roads BR-324 and Avenida Paralela is one of the 5 areas of expansion where invasoes are more significant (Simoes 1985; PMS 1985). Pau da Lima - the health district where we based our study - is at the center of this area (Annex 2b).

2.3 The district of Pau da Lima and PHC in the local context

Pau da Lima is defined as a "health district", in the sense that it does correspond to an administrative division originated in the planning of health services in Salvador. The population of Pau da Lima has been calculated in 1989 to be 240.296 (AISPO a 1989). Since the area is 25 square kilometers, the density of population is 9.600 inhabitants per square kilometer. Presently the district is divided in 11 quarters (bairros): Canabrava, Castelo Branco, Dom Avelar, Jardim Nova Esperanca, Jaguaribe II, Nova Brasilia, Novo
Marotinho, Pau da Lima, Sao Marcos, 7 de Abril, Villa Canaria. The area is hilly and includes both high-density human settlements and patches of tropical vegetation.

The health district of Pau da Lima (Distrito Sanitario de Pau da Lima - DSPL) has been established in 1988 within a plan for the decentralization of health services in the state of Bahia and with the support of the Italian cooperation (AISPO organization, project Pau da Lima). The strategy currently adopted in Bahia for the reorientation of the health system is centered around the organization of local health districts (Sistemas Locais de Saude, SILOS) like DSPL. As a basic administrative unit in the health system DSPL is expected to carry out preventive and curative activities and intervene within a given area integrating its own work with the work of other public sectors and interested communities. This is more easily said than done. For instance, although the plan to divide Salvador into 17 Administrative Regions (Regioes Administrativas) is many years old, the process of administrative decentralization of public services has begun only in the health sector. This means that there are no representatives of other sectors - at the same level of DSPL and concerned with the same district - with which to integrate any work. Hopefully, the functioning of DSPL will be a stimulus for the full implementation of the Regiao Administrativa XIII - geographically corresponding to the DSPL - and allow to face the problems of the district in a more integrated fashion.

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4 The PHC strategy is present in Brazil since the last 1970's. At the beginning it was used to "legitimate" the military dictatorship, that tried to restructure and improve the efficacy of the institutions responsible to supply goods and services, with the hope of decreasing the social tensions within the country. The main stated objective was to extend the health care to all, including the poor of the cities and the rural areas. One important element of PHC - community participation - was used to set up some relationship between the users of the health services and the government in a moment in which the popular dissatisfaction with the government was beginning to show. This kind of community participation, however, was restricted to the moment of service provision without any influence on the decision-making phase (Somarriba 1988). The PHC experience progressed in different ways and with different results in different Brazilian regions and the PHC conception involved with the gradual democratization of the Brazilian society. In 1986 (VIII National Health Conference) a new Health Reform strategy was launched. Its main objective was to re-organize the health system so that a unique organization - and not the 70 or so organizations previously in charge - could serve the whole country. The new health policy adopted most of the positive aspects of PHC in the organization of the local health systems, for instance it kept emphasizing community participation, political and administrative decentralization and integration of preventive and curative health services.

5 As proposed by the VIII National Health Conference, the SILOS could geographically correspond to part of a municipality (an administrative region in a large city), an entire municipality or two or more municipalities. The DSPL comprises a small part of the municipality of Salvador (Junqueira and Inojosa 1988).
The DSPL comprises a network of public, philanthropic and private health facilities that include 12 health units (8 health posts - one of which philanthropic; 4 health centers) and 2 hospitals of reference (a public hospital outside the DSPL boundaries and a private hospital within the district). Some of the basic health units are closed to allow the restoration or extension of facilities. Currently, the DSPL management is developing both a new system of services and a new managerial process. This begins by focusing on priority problems identified in micro-localities, integrating preventive and curative activities, eliciting a maximum of community participation and running continuous follow-up and evaluation activities (Fernandes 1990). With the support of AISPO, Pau da Lima project, activities have progressed in three basic areas (Tasca 1990; Fernandes 1990): 1. structure and management of the health facilities (e.g. organization of health information system; registration of patients; restoration and construction of health facilities; improvement of emergency care) to attend the spontaneous demand and improve services; 2. extramural interventions (e.g. socio-economic profiles of communities, identification of at-risk groups, community-based sanitation in Jaguaribe II) and 3. basic preventive activities (e.g. disease surveillance, training of local health volunteers, promotion of community involvement in solving problems). In implementing these activities the DSPL management is expected to be supported by a number of organized groups such as the Executive Commission (CEDS Comissao Executiva do Distrito Sanitario, which comprises the coordinators of all health facilities present in the district and the DSPL manager), the Directive Council of each health facility (comprising representatives of the health workers, the coordinator of the health facility and community representatives) and the Community Council (comprising the representatives of all bairros included in the district).

Essentially, the DSPL management team is the CEDS, which plans activities for all health facilities. Decisions involving activities in the whole DSPL are taken by CEDS but in each health facility the coordinator can take decisions whenever necessary. Unfortunately, the DSPL manager has limited powers, since the process of decentralization has just began and its development is not expected to be easy nor painless. For example the DSPL does not have a budget to manage (the budget is decided at regional level by the Health Secretary) and until now the process of planning and developing the SILOS is coordinated at regional level and not yet at municipal level as established in the new Brazilian constitution.
2.4 Two premises

Two premises stand at the basis of our work. The first is that the problems of the "environment of poverty" are not likely to be solved by capital-intensive governmental interventions in the next years or even decades. In different countries this is due to different reasons, from sheer lack of economic means to lack of political will to devote resources to the problems of the poorest, from lack of institutional capacity to the in-built momentum of population growth and migration from rural areas (see, for instance, Hardoy and Satterthwhite 1989). Regardless of the peculiar reasons applicable to the local situation, this premise seems to apply fully to the squatter settlements of Salvador da Bahia.

The second premise is that the problems of the environment of poverty can fortunately be greatly reduced at a relatively modest cost. A review of pertinent literature suggests that realistic solutions can be achieved by organizing interested stakeholders - in particular the affected local communities - and using existing resources more effectively (see, for instance, Conroy and Litvinoff 1988; Ndione 1989; Stein 1989 and the many examples collected in specialized journals such as Environment and Urbanization). In other words, the conditions of resource-poor urban environments can be greatly improved by Primary Environmental Care (see later). We assume that this second premise is also valid for the squatter settlements of Salvador and this study wishes to investigate the area of its application.

2.5 Primary Environmental Care

Primary Environmental Care (PEC) is defined as a process by which - with various degrees of external support - local communities organize themselves and strengthen, enrich and apply their own means and capacities (know-how, technologies and practices) to integrate the protection of their environment with the satisfaction of their needs (MAE/DGCS 1990). In this sense, PEC has three fully integrated components: a) protecting the environment; b) meeting needs; c) empowering communities.

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6 It may appear socially inequitable to call upon the work and sacrifices of the poor to solve their own environmental problems when the great majority of more affluent citizens find their problems solved by governmental interventions. Indeed it is so, and community-based action should never imply that the state responsibilities towards the poor are forgotten. Any opportunity for change, however, is closer to the interests of the poor than perpetuating a futile wait for top-down interventions.
Environmental protection implies that the local ecological features and processes that sustain life and genetic diversity are maintained. Meeting needs implies that communities are able to maintain, produce and/or gain access to the goods and services necessary to life, health and well-being. Community empowerment signifies a process of self-recognition, clarification of problems and needs, decision-making and action in full partnership with other interested parties (MAE/ DGCS, 1990).

In this work we will use the term "environment" to indicate purely physical and biological entities and phenomena, but we will remain as close as possible to the strategic approach of PEC. As mentioned above, PEC sees environmental protection as inseparable from meeting basic needs and empowering communities. In other words, we will not deal with the rather academic discussion of what enters and what does not enter in the "environment box" but with the more operational question of what needs to be taken into consideration if a more livable, safe and ecologically sound environment is to support life in poor urban settlements. In this sense the experiences and lessons learned in the past overwhelmingly point at the fact that the physical, biological and social components of the environment need to be taken in consideration together. In a way, this statement describes the obvious: a physical property of the environment - let us say the presence of dust in the air - can influence and affect a human being only via the socially depending conditions of exposure (work conditions, economic situation, education, awareness of risks, etc.). Moreover, few would dispute that a mother with no time or money to take care of her children could be sincerely interested in planting trees to avoid soil erosion, or that a squatter without any hope of land tenure is likely to spend his days collecting garbage to clean up its neighborhood or building a sewage system. And, beside the obvious, some less immediate considerations can also apply.

The concept of "environment" is a most complex and elusive one. Almost everyone accepts the ethimologically-based definition of environment as "the circumstances and conditions that surround and/or influence a given body" but various authors stress different meanings within this broad definition. For instance, the environment may be understood as "the purely physical" habitat of human beings or as the "complex of physical and socio-cultural factors" influencing human beings. It may be understood as "ecosystem "(privileging the dynamic exchange of matter and energy among the physical, chemical and biological components of a system) or as a "territorial unit" managed by people (privileging human actors as agents of transformation and regulation). It may even be seen as a "perceived habitat", whereby stress is put on the highly subjective perception of constituting elements, relative importance and meaning (Bresso et al. 1985).

The concept is illustrated in the main publications dealing with environmental concerns - from UNEP (1981) to WCED (1987) - as well as in collections of case-studies of local environmental management, from Conroy and Livitnoff (1988) to Borrini (a 1990).

For instance meeting needs is essential for environmental protection because:
light, this study will examine problems related to the purely physical environment together with problems related to the social sphere, the satisfaction of needs and the organizational potential of local people.

Although the main actors of PEC are individuals, groups and community organizations\(^\text{10}\), for the success of the strategy it is paramount to achieve an integrated effort of the different stakeholders who have vested interests and play a role in the management of the local environment and satisfaction of local needs. These stakeholders may include all the municipal public sectors, NGOs\(^\text{11}\), professional

- poverty and lack of economic alternatives are among the principal factors forcing a community to damage its physical environment (only the ones not oppressed by poverty and insecurity can afford to invest in long-term objectives);
- healthier and better educated individuals are more productive and efficient and can engage in the many activities required for a sound environmental management;
- when political rights are assured it is less likely that resources are ill distributed or controlled by interests external to the community (these conditions favor - at the same time - human deprivation and environmental problems);
- meeting basic needs (e.g. food, education, health care, employment) is associated with decreasing population growth, and - by consequence - promotes a sustainable relationship between people and environmental resources.

Empowering communities is essential for environmental protection because:
- local communities are more directly interested and potentially more strongly motivated to act for their own environment than any other social actor;
- local communities often include under-recognized and under-utilized human resources;
- the environment comprises the people inhabiting it, and a fundamental need of people is to define themselves on the basis of what they want and what they do.

To complete the picture of the interrelationship among the PEC components we could observe that environmental protection is necessary for meeting needs because:
- there are no human needs that do not depend on some environmental component;
- the prevention of environmental disasters most often implies the prevention of economic and health disasters as well;
- if we are interested in meeting the needs of future generations as well as our own needs, the environment must be maintained capable of self-regenerating and reproducing the goods and services that it offers today.

(This note has been translated from Borrini, b 1990)

\(^{10}\) With the term community organization we indicate local groups who work together for the sake of community interests. They are identified by a name and possess established procedures for electing representatives. The may or may not include or represent all inhabitants of a given "geographical" community, e.g. a squatter settlement.

\(^{11}\) NGOs are here meant to include legally established, autonomous entities that possess non-profit status and are organized for the primary motivation of improving the well-being of people (Anello, 1989). They usually work at national, regional or district level and most often in conjunction with community organizations at the local level.
experts, private businesses, credit institutions, academic institutions, and foreign aid agencies working in the area.

How can this process of partnership be promoted and supported? This is the subject of this study: what needs to happen to set PEC in motion, what - in particular - can be done by the district health system, Italian aid, other interested stakeholders and the communities themselves in the health district of Pau da Lima in Salvador da Bahia.
3. OBJECTIVES

3.1 General Objective

To identify and assess potential actors, conditions, means and tools to integrate Primary Health Care (PHC) and Primary Environmental Care (PEC) in the health district of Pau da Lima (Salvador da Bahia, Brazil).

3.2 Specific Objectives

SO1 To assess the main PEC problems currently affecting the district of Pau da Lima.

SO2 For a number of squatter communities in the district:
- to assess the main PEC problems;
- to identify the felt priorities in PEC;
- to assess the basic interests in PEC;
- to identify instances and achievements of community action in PEC;
- to identify problems eventually encountered;
- to identify forms of support that have fostered (or would foster) such actions.
- to identify forms and conditions of present (or possible future) community organization, and schemes of follow-up;

SO3 To identify potential stakeholders and assess their activities and interests in PEC in Pau da Lima, with particular attention to DSPL and AISPO (the association carrying out Italian health cooperation activities within the district).

SO4 To appraise:
- possible contributions of DSPL, AISPO and other stakeholders to promote PEC and integrate it with PHC in the DSPL;
- conditions fostering success;
- means and tools for action.
To develop a number of recommendations to support PEC in Pau da Lima and integrate it with PHC, addressing:

- the DSPL management;
- AISPO and the Coordination of the Italian cooperation in Brazil;
- the communities included in the study;
- other interested stakeholders.
4. METHODOLOGY

4.1 General Remarks

This study is exploratory rather than descriptive\(^\text{12}\) i.e. it wishes to investigate an operational hypothesis rather than a current situation or a correlation between phenomena (see our general objective). Moreover, most of the phenomena to be examined (felt priorities and interests in PEC, community-based activities, problems and support encountered, forms and conditions of community organization, etc.) belong to the field of social research and are better described in qualitative terms (words) than in quantitative terms (numbers). Finally, it is generally understood that classic survey research in a context of extreme socio-economic and environmental instability - such as the one found in marginal urban settlements in the Third World - is flowed with peculiar difficulties. These include areas such as definition of residence, selection bias in cross-sectional studies, identification and measurement of exposure and outcome data, identification and measurement of socio-cultural factors likely to influence behavior as well as the use of services and the answers to questionnaires (Yach 1990).

These difficulties seriously question the validity and representativeness of hard numerical data in the context of a study such as ours.

The above considerations led us to focus our work on case studies and qualitative information rather than classic survey research, and to collect data via a variety of field-work techniques usually described under the collective term of Rapid Appraisal (RA) (Chambers 1981, Scrimshaw 1987, McCracken 1988, Annet 1989). The techniques we have employed include:

- review of secondary data;
- direct field observation;
- focus group meetings;
- ranking exercises;
- structured interviews with key-informants;
- unstructured conversations with general informants;

\(^{12}\) This study does not wish to assess the health status of the inhabitants of squatter settlements in Salvador, nor to assess the extent and severity of the environmental problems affecting them. It does not either wish to assess whether a relationship exists, and how strong it eventually is, between poor environmental conditions and poor health, nor the appropriateness or quality of the health or other social services the squatter inhabitants manage to access. In the context of marginal urban settlements the above has been amply examined and analyzed elsewhere (see for instance the references mentioned in the background section).
- life history interviews;
- collection and laboratory analysis of samples;
- discussion in general meeting (feedback).

The above techniques were selected following a number of criteria (Boff 1988), including:
- capacity to establish rapport between researchers and informants, and therefore elicit trustworthy and valid information (contextual validity);
- capacity to elicit in-depth information (for instance on the details of motivations or the causes of the problems);
- flexibility (allowing a tuning of data collection procedures even after completing the pilot phase of the study);
- community involvement (allowing for a continuous check of the relevance and "meaning" of the research subject for the interested communities).

Tools (e.g. checklists and outlines of the structured interviews) and procedures have been tested in a pilot study performed by our group assisted by the ICHM facilitator in another bairro of Pau da Lima (Nova Brasilia).

4.2 Data Collection

The first step of our research has been a preliminary identification of present and future potential actors in PEC and PHC at district level. By definition, the actors of PEC are local community members (as individuals, in extemporaneous groups or in community organizations) and a variety of external supporters. These may include the district staff in several sectors, and governmental and non-governmental institutions and organizations who have a stake on environmental care at district level. In PHC, the main actors are the district health system and local communities. In the area of integration of PEC and PHC at district level we have thus to focus on a partnership between communities and the district health system. Other "stakeholders" may also play important and at times essential roles in the process of integration, but cannot be generalized outside of a specific district context.

In our study we have interacted with a few squatter communities, the DSPL management and a number of other potential partners identified during the process of RA, with particular attention to the AISPO organization, presently carrying out health cooperation activities within the district. We choose squatter communities because they
are the ones most seriously affected by environmental problems. The numbers of communities selected (three) was a compromise between time constraints and the desire to illustrate peculiarities in different communities. Selection involved two stages. In the first stage, discussions with the health district officials and the representatives of Italian cooperation and AISPO guided us in identifying a bairro within the district. The criteria followed in this selection were: interest of the DSPL managers to develop activities in the bairro; necessity to avoid overwhelming some bairros with too many activities; presence of local organizations who could facilitate the contacts between our group and local community members. In this way we selected the bairro of Castelo Branco. In the second stage we contacted two local organizations who already had contacts with DSPL and AISPO (PROCAB and MODEMO, see later) to identify what squatter communities to select within the bairro. We did so according to one main criterion of choice: representativeness of different times of settlement within the bairro.

The communities we finally selected - Cristo e Vida (settled on March 1990), Direito de Morar (settled on February 1989) and Baixa da Bica (settled in 1975) - are not "statistically representative" of the squatter settlements neither of Salvador da Bahia nor of Pau da Lima. The communities are, however, typical enough among the squatter settlements in the health district of Pau da Lima to give us confidence that the conclusions we will draw are likely to be meaningful for most similar communities in the area. In fact, according to our informants the most salient differences among local squatter communities seem to be related to the length of settlement, a factor we have tried to account for by selecting three communities set at different times (one old, one relatively recent and one very recent). A problem we faced in the selection relates to the fact that the people of PROCAB and MODEMO could not indifferently introduce us in all communities we could identify in a map and date in terms of settlement. We had thus to find a suitable compromise between intrinsic characteristics of the communities and the availability of someone to introduce us and guarantee that our study would be acceptable. In principle, this may have introduced a "representativeness" bias in our selection of case-study communities. We investigated, however, about whether contacts with people such as the ones who introduced us were or not commonplace, and they actually were for most squatter communities. We deduced that our selection was not likely to be seriously affected.

We will now describe and discuss in detail all the techniques we have used and refer them specifically to the specific objectives (SO) they were designed for.

SO1 The identification of the PEC problems in Pau da Lima has been done by:
* Review of secondary data with the help of basic checklist (Annex 3). District statistics and reports were consulted as well as other sources of local information, e.g. academic dissertations from the local university and media programs (television, radio, newspapers). Informal discussions were held with a variety of people in the district. During our study in Salvado, the media were specially active in underlining environmental and social problems in the city because of the electoral campaign for the state government elections.

SO2 The communities selected for the case studies have been examined by:

* Direct observation: observation walks were done by our group in each of the three communities chosen. We noted the results in a special observation checklist (Annex 4) and took photographs of the more characteristic environmental aspects. During the first contacts we were introduced to the communities and accompanied by members of local NGOs.

* Focus groups: 3 focus groups meetings (with women, men, youth under 20 years) were organized in each community; they gave us three different points of view about PEC problems in each squatter area. Participants were invited with the help of people living in the community who collaborated during our visits. The ideal number of participants in the meetings was fixed between 6 and 12 following the indications of RA literature (Mc. Cracken 1988); on the spot, however, we were forced to work one time with 5 and a few times with 13 individuals. Much care was taken in choosing the place where people would meet; we always tried to get it as close as possible to the area of settlement and "neutral", to facilitate participation and prevent the "conditioning" of the discussions. Refreshments were served at the end of each meeting. A list of steps (Annex 5) was prepared to assist the focus-group facilitator. The Brazilian member of our ICHM group played always the facilitator's role to arouse people's confidence and ease communication. An other person, Portuguese speaking too, took notes of the issues raised in the meetings; for such a note-taker a specific guide was prepared, as well as an explanation of the general and specific objectives of the study; further specific training did not prove necessary because we found a person particularly motivated and skilled in health studies. Group dynamic as well as the results of the ranking exercise were noted by the other two members of the ICHM team on a specific guide for adjunct note-takers (Annex 6). The community spontaneous point of view on what constituted an 'environmental' concern was assessed by asking a first simple question ("what are the positive aspects and problems in your environment?). A number of specific issues were
then discussed in the group before the facilitator invited to set-up a priority list among problems. Criteria for problem identification and priority were elicited during a pairwise choice exercise. We preferred not to use a complete preference matrix (Scoones 1989) because investigating all possible comparisons would have limited the number of problems to deal with. We interpreted the selection criteria as illustrations of interests underlying a felt problem (see later). Community organization and action in PEC were investigated by questions that raised general discussion. This subject proved to be particularly difficult to explore because of semantic and perhaps conceptual reasons. The fact that an electoral campaign was underway complicated our work considerably. It may have even introduced a bias in the results, insofar people seemed to be most interested in describing vindications to political authorities (preferred activities in a pre-electoral period) rather than autonomously-run activities. At the end of the meetings, all notes collected in Portuguese were translated into English by the Brazilian member of our group to facilitate the on going analysis of information by other group members. Photographs have been taken to document some significant moments of RA.

* Ranking exercise: a direct matrix ranking (Chambers 1988) by each individual in each focus group was used to assess the first five priorities in environmental care (see the specific steps in Annex 5). The ranking followed a pairwise choice. Tallies and priority for each problem have been recorded on the same guide for adjunct note-takers mentioned above.

* Structured interviews with key-informants: at least 2 key-informants were interviewed in each community. Their identification was done during the observation walks and following visits, according to criteria such as length of residence in the community (the longer the better) and relevance of role inside the community (e.g. past member of local commission). The Brazilian member of our group interviewed them with the aid of a check-list of questions (Annex 7) and a tape recorder. The subject raised in the interviews included a few for which information had already been collected by direct observation and in the focus groups (triangulation).

* Life history interviews: in order to integrate the structured collection of data mentioned above, we decided to collect a number of brief life histories among the people living in the squatter settlements. The intention behind this choice was to supplement the specific information collected with the use of checklists and structured interviews with some more integrated information expressed with the own words of the squatter inhabitants. We also hoped that the life histories would provide us with some clues on
mechanisms by which people get to become and remain squatters. The people selected for collecting the life histories (1 young man and 1 woman in Baixa da Bica; 1 woman in Direito de Morar and 1 man in Cristo é Vida) were identified in the focus groups meetings or during the observation walk. The selection was not guided by specific criteria except length of residence and willingness of the subjects to talk. During the interviews people were stimulated with an introductory question and then with a few other questions when necessary. Before starting we explained the aim of our study and asked them to speak freely. Information was collected in writing and with the help of a tape recorder.

* Laboratory analysis: we took samples from the main sources of water used by the people in the communities. The Bacteriological Department of the Secretaria de Saude do Estato da Bahia performed drinking quality analyses.

* Feed-back meeting: we invited all members of the three communities and - in particular - the people who had been involved in the study, to a common feed-back meeting to report on the results collected so far and elicit possible further specifications, comments and suggestions. Historical profiles and felt priorities in environmental care were presented to the communities and discussed with the help of a facilitator. The second part of the meeting was spent discussing the communities own proposals for action. DSPL management and representatives of Italian cooperation and AISPO attended the meeting. We would like to mention here that regardless of our frankness about the objectives and limitations of the work, the district communities tend to expect that some concrete help follows a study such as this one. These expectations, coupled with the imminence of local political election, may have charged our study of undesired meanings and possibly affected our results in ways difficult to assess. It was, however, very rewarding for us to notice that the process of Rapid Appraisal had fired a great interest on environmental issues among the locals.

SO3 The identification of present stakeholders and assessment of their activities and interests in PEC was done by:

* Review of secondary data.
* Informal consultations with a number of people in the district.
* Structured interviews, using a check-list of questions (Annex 8).

We selected only 10 stakeholders among the potential many in Salvador or in the Pau da Lima district. A few (e.g. DSPL, AISPO, Italian Cooperation) were included because
obviously congruent with the general intent of our study. For the others, our main criteria of choice were: experience in environmental action and experience in working with communities. The majority of institutions interested and competent on environmental activities in Pau da Lima are municipal institutions but we interviewed only 2 of them because of regional elections. In fact, on the one hand the representatives of these institutions will be changed in March 1991, and, on the other, in the electoral context the likelihood of obtaining reliable and meaningful information from some of them was deemed negligible. In scheduling appointments with the stakeholders we had to be quite flexible (re-scheduling has been the norm rather than the exception). Once the interview was going on, however, we experienced a sense of genuine collaboration from our interviewees.

SO4 The different points of the fourth specific objective have been appraised through an analysis of the information collected as described above, supplemented by a second stage of structured interviews with the stakeholders (Annex 9).

4.3 Presentation and analysis of data

In order to simplify and facilitate the analysis, results were summarized with the use of typical RA tools (i.e. life histories, historical profiles, transects, maps) and conceptually clustered matrixes as suggested for qualitative data (Miles and Huberman 1989). Matrixes were structured according to both the questions made during data collection and the study objectives. In this way much of the material collected has been preliminarily interpreted by clustering information. For instance, the different criteria raised during the pairwise choice ranking were categorized to obtain a broad indication of the kinds of interests underlying the three communities' perception of PEC problems. We then interpreted these interests as possible motivations for action. It is possibly interesting to notice that we did not use one of the classifications present in literature (e.g. Maslow's need hierarchy as reported by Scanlan 1979) but an "ad hoc" classification (Annex 10) to remain closer to the local point of view according to the emic approach followed by anthropologists (Pelto 1970). The classification was found to apply

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13 The life histories have been edited very little, to convey - as much as it is at all possible through the translation - the words and perceptions of the informants.

14 All questionnaires were prepared by using the computer word-sheet Microsoft Word. Matrixes were set on the spread-sheet Lotus 123.
to the criteria expressed by each community, and by each focus group within a community (men, women, youth). Another example of summarizing data can be found in the matrixes that report on PEC activities and forms of local organization (Tables 3a, 3b, 6a, 6b, 9a, 9b). The matrixes were built with data from both focus groups and interviews with local key-informants.

The results reported in the following section, and in particular the conceptual matrixes, have been further analyzed to draw and verify conclusions with the help of a few usual procedures in qualitative analysis (Miles and Huberman 1989). We identified a number of phenomena, observed the frequency of certain answers, noted patterns and recurrent themes and drew operational hypotheses related to our general objective. In drawing hypotheses, we asked ourselves: "given the situation and the problems, what should be done to solve them? given the interests and resources of various potential actors, who should do what? what specific tools could be employed?" and then checked the plausibility of our answers against the available information. In this way we drew the specific recommendations reported in section 7.
5. RESULTS

5.1 Main PEC problems in the district of Pau da Lima

The main PEC problems in the district of Pau da Lima are here presented following a check-list that was also used during the observation walks, focus group meetings and interviews with key-informants.

WATER SUPPLY: water is supplied by the state Empresa Bahiana de Agua e Saneamento (EMBASA). The district suffers from the same problem of many other areas of town: water is not drinkable because of organic pollution. In spite of the massive chlorination even the tap water should be boiled or filtered before drinking. Quantity is also insufficient because of irregular supply; it seems that the frequent jumps in water pressure are caused by vacuum inside the pipe and aspiration from the ground. One main dam has been constructed years ago to prevent scarcity of water in Salvador. Many resources have been employed in the construction but the dam has never worked. In this situation of general shortage some areas of the city are privileged (e.g. industrial, residence, tourist areas) with respect to other area like Pau da Lima. Within Pau da Lima, not all residents are served. The illegal residents buy water from private vendors, get water from local sources (wells, springs, etc.) or connect themselves illegally to the EMBASA water main.

FOOD SUPPLY: for people with money, Pau da Lima is quite well served by several shops (formal or informal sector) and supermarkets. "Cesta do Povo" shops have been introduced by the government in all of Brazil more than 10 years ago to sell survival food under price control to protect the poor against inflation. However, 4-5 years ago most of these shops closed and the remaining ones work intermittently because of shortage in supplies. Home gardens are not uncommon, but many people who would greatly profit from them cannot tend them because of lack of land. The last, still free food source of the poor are the patches of tropical forests where abundant fruits and some animals can still be found.

ENERGY PROVISION: electricity is distributed by the state Companhia de Electricidade do Estado da Bahia (COELBA) in the urbanized area. Interruptions in supply are not common but jumps of intensity are. The invasoes are often illegally connected (gatos). Gas is the most used form of energy to cook; the cost of one metallic container is 300Cr$ (September 1990), which is relatively inexpensive, but still out of reach for the poorest
district inhabitants. When gas cannot be bought people buy fuelwood, gather fuelwood from the forest or avoid cooking meals.

HOUSING: one of the main institutions of reference is the state Habitacao e Urbanizacao da Bahia (URBIS); it is the most important landowner after the municipality and one of the actors of the urbanization of Salvador. Two areas can be distinguished within Pau da Lima: an "urban" area (bairros of Castelo Branco, Dom Avelar, Pau da Lima, Sao Marcos, 7 de Abril and Villa Canaria) and a "rural-urban" area (bairros of Canabrava, Nova Brasilia, Novo Marotinho, Jardim Nova Esperanca, Jaguaribe II). The "urban" area is characterized by brick and concrete houses and served by essential infrastructures (transportation, schools, sanitation, streets of access). There are several types of buildings including many conjuntos habitacionais and loteamentos, conceived as mass housing and characterized by standard schemes of project and standard construction materials. The "rural-urban" area tries to reproduce the "urban" one, but the buildings have lesser quality infrastructures and are interspersed by green areas. The invasoes are concentrated in the bairros of Castelo Branco, Dom Avelar, Novo Marotinho, Pau da Lima, 7 de Abril and Villa Canaria. In the invasoes quality of housing reflects the characteristics of the ground, the time of settlement, and the level of community organization. The most recent invasoes are usually crowds of shelters made by wood and plastic; the oldest ones usually include a number of brick and concrete rooms covered by corrugated roofs. There is little or no protection against natural disasters. According to a study commissioned by AISPO (AISPO b, 1990), 32% of the total population of the district lives in mass housing schemes (conjunto habitacionais and loteamentos), 53% in other buildings and 15% in squatter settlements. The situation, however, is changing so rapidly that the above data may not be valid for long. In fact, many informants in the district told us that the percentage of Pau da Lima population living in squatter settlements is well above 15.

SANITATION: a sewage system is present only in the urbanized area of the bairro. The waste water is collected by open drains that usually pass through the invasoes and may end up directly in a brook. The open drains are often-over filled by rain or clogged by garbage, causing floods, slides and pollution of land and water. Proper sewage systems are virtually unknown in the squatter settlements, where some families build separate privies for washing but very few own a toilet facility. It is not uncommon that waste water enters in contact with drinking water sources.
GARBAGE DISPOSAL: in the urbanized area the removal of garbage by the municipal Empresa de Limpeza Urbana (LIMPURB) is irregular and places for the collection of the garbage are very few. LIMPURB does not work at all in the invasoes. Even people inhabiting areas theoretically served by garbage collection, often simply throw their waste away, and especially down the encostas and baixadas where it gets "out of sight". Squatters have thus to deal with their own as well as other people's garbage. Open garbage attracts a variety of animals and insects, and in particular rats, flies and mosquitoes that can spread disease and are a source of nuisance in the neighborhood.

"BUILT" ENVIRONMENT: the district is characterized by hills where inhabitants are distributed according to patterns relative to their income. The conjunto habitacionais are located on the top of the hills (cumeadas); most of their inhabitants are workers in the industry or in the public services with a family income from 5 to 8 minimal salaries (AISPO a 1990). The loteamentos are located on the hill-sides (encostas) or on the bottom (baixadas); their inhabitants have slightly lower incomes. Roads are lit and paved but often the rain drainage system is insufficient and causes the formation of pools of water that impair the traffic. In the invasoes - where the formal or informal family income is one minimal salary or less - there is no provision whatsoever of infrastructures such as ways of access, rain drainage, public lighting, etc., and the location of houses (always in the least suitable encostas and baixadas) limits accessibility in case of health emergencies or disasters.

"NATURAL" ENVIRONMENT: the area was originally covered by tropical forests, and crossed by a variety of brooks and small rivers. Urbanization has first interested the top of the hills, that have been occupied by roads and buildings. Squatter settlements have followed, stripping vegetation from encostas and baixadas and subjecting the sandy soil to fast erosion because of the heavy rains. Too often landslides and floods have resulted, and many local springs have dried up. Large patches of forest can still be found in the district but it is to be expected that in a few years - in the absence of sensible planning and responding to the growing pressure for space, food and fuelwood - they will all be gone. Presently, it is not uncommon to spot fires in forest areas where people clean up land for squatting. With progressing deforestation, it can be expected that the whole geological situation will further deteriorate (erosion and landslides) and the watershed balance will be further upset (drying up of more springs, contamination of ground water with sewage and polluted water, etc.).
"WORK" ENVIRONMENT: Pau da Lima is more a residential than an industrial district. Its main large scale enterprise is the city dump, which collects all the garbage of Salvador. The dump is actually filling up a valley in Canabrava, one of the barrios of Pau da Lima. Hundreds of people, the poorest of the poor, meet there everyday, contending the garbage from the "urubus" - a kind of scavenger bird - dividing it per kind and selling it to recycling companies (Moura 1989). The awful smell from Canabrava pervades several kilometers around. Many repair shops and small manufactures are also present in the district but we have not been able to collect reliable information about them as source of pollution (only a repair shop of the public transportation system seems clearly to affect the water quality of some streams in the area), nor about the occupational hazards that may affect local workers. Children of poor families are engaged in informal activities (e.g. walking vendors of coffee, cigarettes, ice cream, etc.). Domestic work for middle-class families is very common among poor women. In both cases home-based activities (preparing coffee and sweets, washing clothes, etc.) are customary and the lack of supplies (water, electricity, etc.) represents a nuisance and an economic damage. Informal construction and repair work outside the district is also the principal source of income for men, which implies they need to travel long distances every day. The road traffic is intense and car accidents are common. Near Pau da Lima, the airport "2 de Julho" is the site of continuous arrivals and departures of airplanes to/ from Salvador. Flying over the DSPL, these are source of frequent, intense noise.

"LIFE" ENVIRONMENT: destitution and poverty are generalized in consequence of a inequitable distribution of goods and services based on an economic policy that does not serve the interests of the majority of the population. In fact, the model of urbanization and the housing conditions in Salvador well reflect the socio-economic deprivation suffered by many in Brazil. For most marginal people it is impossible to find legal housing, and for many - in particular individuals without family support - it is also very difficult to find a space within a squatter settlement (IAB 1977; Mattedi 1979). For the ones with very little personal resources it may even be impossible to find a piece of land where to squat alone. Squatters have very low levels of formal education and are generally unskilled. Problems as small robberies and violence - including police violence - are common in their communities. Drug addiction and drug related-violence are also. These problems create an unfair "public image" of the squatters. For the police and the better-off inhabitants of the city all the squatters are outlaw, disreputable people. In fact, the presence of different social classes in Pau da Lima increases the chances of conflict.
among the population. A local newspaper even gives to the area the bad primacy of the most violent in Salvador ("A Tarde", September 10, 1990).

SOCIAL SERVICES: there are numerous primary schools in the district, but classes are overcrowded for lack of teachers. Secondary schools are not sufficient. The existing kindergartens cannot accommodate all the young people in need and - according to all informants with whom we spoke - do not function well. The Centro Social Urbano includes a health care facility run by the state Work Secretariat and a public school. In the past, training sessions were offered to the population but without appropriate planning. Kindergartens, health care facilities and training sessions are also run by philanthropic organizations. Their services are generally of better quality than the ones run by the state. Several public health facilities of intermediate level (one for each bairro) are present in Pau da Lima, but only some of them are functioning (a plan of upgrading them has begun). Many private health facilities, some of which providing services in convention with the state, are represented in the district, as well as many private pharmacies. The Roberto Santos hospital - outside the area of the district - works as main health referral facility but it functions poorly. A private large hospital (Sao Rafael) has a philanthropic agreement with the municipality and the state to give assistance to out-patients referred from the peripheral health facilities of the district. It admits patients in four specialities. Public transportation is supplied mainly by private companies who take little care in maintaining an insufficient number of buses.

The information reported above gives a broad view of the intertwined "environmental" and "needs" issues that call for solution in the Pau da Lima district. To complete the PEC picture we will add a little information in terms of community empowerment, the third component of PEC. There exist a large number of local organizations in the district (groups of women, groups of youth, resident associations, church groups, etc.) but they rarely are powerful enough to assure to their members a real decision-making influence on local issues. Many residents have the feeling that important decisions in the life of the district are taken by distant authorities and powerful individuals, and have little to do with local wishes and interests. The Community Council - an organism comprising the representatives of all bairros in the district - has yet been created only on paper. People interested in gaining some influence on district affairs have the option of joining a political party, but few among the poor trust that in the political arena things can change for the better for them, or at least change in the short time. It is not uncommon that local inhabitants organize "dramatic" demonstrations, such as blocking of public roads, firing of large quantities of garbage, marches, talks with media representatives, etc. to
denounce their unbearable living conditions. Rarely, however, these demonstrations seem to achieve important results.

5.2 The case studies

The case studies reported below refer to three communities in the bairro of Castelo Branco, one of the most interesting in the district of Pau da Lima for the close and evident coexistence of legal housing schemes, related urban services and illegal invasoes. It was established in 1967 when the first conjunto habitacional was built by the government to give a house to public employees (most of them working in the Police). The process of urbanization fastened its pace in the following years producing an intensely built area comprising many conjuntos habitacionais and the peculiar Projeto de Pesquisa - a housing scheme planned for lower-income public employers. In 1977 the first illegal settlements were set up. Presently, 13 invasoes can be counted within the bairro, but the growing of new invasoes is now so fast that their number needs to be up-dated almost every month together with the number of inhabitants in Castelo Branco (approximately between 50.000 and 60.000) (AISPO b 1989). The very fast rate of growth in the bairro is due to the fact that most of its land is property of the state or the municipality and thus more safety invaded than privately-owned areas.

There are three organizations working in Castelo Branco:
* The Conselho de Moradores de Castelo Branco, that takes care of the interests of legal residents and manages assistance activities through several political contacts. The president was candidate for the PTB (Partido Trabalhista Brasileiro).
* The Projeto Castelo Branco (PROCAB) that helps squatter settlers. It supports the self-organization in each invasao and helps in the mediation with URBIS and the municipality. It was kept up by the financial contributions of its members and the external support of Visao Mundial, a Brazilian NGO in Belo Horizonte. Now this partnership is finished after four years.
* The Movimento de Defesa da Moradia (MODEMO) that was born after a political dissidence inside the Federacao de Associacao de Bairros de Salvador (FABS). Silvio - one of its members - went out from FABS and founded MODEMO, which started to be active in 1983 supporting the squatter settlers of Plataforma (another bairro in the city). Now Silvio lives in Castelo Branco, in the invasao of Direito de Morar, and from there continues his activity. MODEMO is present in many quarters of Salvador, including Castelo Branco. MODEMO is a popular movement rather than a formal association. Its activities focus on supporting the Local Commissions elected by the people in each squatter settlement.
5.2.1 Case-study: Cristo é Vida

The area of Cristo é Vida can be approximated in 7,500 square meters, with about 200 inhabitants. 36 shacks can be counted. The settlement is on a very narrow, mild slope delimited by a public road and a steep decline towards a cultivated valley. Very few trees can be seen among the houses, which are separated quite nicely by well kept sandy pathways. The general appearance is of a recent settlement, with shacks mostly built with wood poles and plastic sheets. Not many people can be seen around. A picture of the settlement (Figure 1), its transect (with a note including the results of water bacteriological analysis) (Figure 2), sketch map (Figure 3) and historical profile (Figure 4) are reported below to illustrate the area and the main PEC problems. The lists of community positive aspects, environmental problems and felt priorities in PEC will follow (Table 1). The basic interests in PEC, instances and achievements of community action, forms of support and problems encountered, forms and conditions of community organization and schemes of follow-up will then be reported in a matrix structure (Tables 2, 3a, 3b). Finally, we will report the life history of a person living in the community.

Figure 1 - The squatter community of Cristo é Vida and - in the background - some mass housing schemes. The photo was taken in October 1990, when many more bricks rooms were set up than they existed in early September, when we had our focus groups meetings in the area.
Figure 2 Transect of Cristo de Vida (4.9.1990)

PROBLEMS
- Pounded Well
- Basin in Road
- Very steep pathway
- Uneven terrain
- Houses, small and large, built on road
- Lack of land tenure
- Pathways or road
- Homes, small and large, built on road
- Lack of water supply
(People buy water from neighbors for personal use)
- Illegal extension of settlement with taller buildings
- Lack of family services
- Lacks of drainage system
- Open disposal of human excreta
- Open disposal of garbage
- Basin in Road
- Building materials
- Attraction of animals (rats, flies, etc.)

POSITIVE ASPECTS
- Easy access
- Garage, collection, and removal
- Bus stop
- Meat shop
- Tied sheep
- Space between houses well organized
- Family gardens
- Growing of vegetables and small pigs
- Roof domes in place (sieve) of rain water
- Some facilities for personal hygiene
- Space reserved for kindergarten
- Simple (earth-built) water drainage system
- Quiet place, good air, no noise, for children
- Friendship

NOTE: * Bacteriological analysis of water: not drinkable (Total Coliforms: 430/100ml, fecal coliforms: 4/100ml)
** Bacteriological analysis of water: not drinkable (Total Coliforms: 5/100ml, fecal coliforms: 5/2/100ml)

- 35 -
Figure 3    Sketch map of Cristo é Vida (4.9.1990)

1. Conjunto Habitacional Cayazeira VII
2. Public Telephone
3. School
4. Bus Stop
5. Garbage Collection
6. Bar
7. Water Vendors
8. Spring
9. School
10. Conjunto Habitacional Cayazeira VII
11. Bus Stop
12. Garbage Collection
13. Conjunto Habitacional Cayazeira II
14. Area of Settlement

Scale 1:2000
Figure 4  Historical profile of Cristo é Vida

1978
- João, the first settler arrives
- Three tentatives of squatting are repressed by police

1976
- Three houses are standing

March 1990
- Starts squatting organized by Rodem
- Selected site for future kindergarten
- Police is called by a local resident of near by loteamento and throws down all the houses
- Rodemo organizes the local commission
- Rodemo, solicited by squatters, contacts URBIS
- URBIS temporarily authorizes to build 15 houses only

May 1990
- More than 20 houses are built
- Illegal connection with electricity supply is established

August 1990
- Fire accident, one house burned, one child hurt

September 1990
- Money collected among the squatters by local commission initiative to get illegal connection with water pipe

September 1990
- Street demonstration for land tenure in Piedade Square (Salvador Center)
- Meeting with URBIS president, dispute with Rodemo leader
- Rodemo gets the support of a lawyer (Lawyers Guild of Brazil)
- Illegal connection with main water pipe is established
- More houses are consolidated with bricks
- There are 43 houses
Table 1  Cristo é Vida: community environmental awareness and PEC priorities

<table>
<thead>
<tr>
<th>&quot;POSITIVE ASPECTS&quot;</th>
<th>&quot;ENVIRONMENTAL PROBLEMS&quot;</th>
<th>&quot;PEC PRIORITIES&quot; after DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WOMEN</strong></td>
<td><strong>MEN</strong></td>
<td><strong>YOUTH</strong></td>
</tr>
<tr>
<td>Easy transportation</td>
<td>Easy transportation</td>
<td>Bus stop is near</td>
</tr>
<tr>
<td>Traffic on the road</td>
<td>The shops are near</td>
<td>The street is near</td>
</tr>
<tr>
<td>The shops are near</td>
<td>The street is near</td>
<td>The nature is good</td>
</tr>
<tr>
<td>To have a place where to live</td>
<td>There is a good air</td>
<td>The area is near other houses</td>
</tr>
<tr>
<td>No danger for children</td>
<td>Cars near the area</td>
<td>The neighbours are nice</td>
</tr>
<tr>
<td>There is place for family garden</td>
<td>To have a place where to live</td>
<td>Quiet environment</td>
</tr>
<tr>
<td>Absence of slope</td>
<td>The place is quiet</td>
<td>It is a quiet place</td>
</tr>
<tr>
<td>The friendship</td>
<td></td>
<td>Absence of slope</td>
</tr>
<tr>
<td></td>
<td><strong>WOMEN</strong></td>
<td><strong>MEN</strong></td>
</tr>
<tr>
<td>Traffic accidents</td>
<td>Lack of water</td>
<td>Lack of water</td>
</tr>
<tr>
<td>Scarcity of transportation</td>
<td>Lack of health care</td>
<td>Social conflicts</td>
</tr>
<tr>
<td></td>
<td>Lack of police facility</td>
<td>Lack of electricity</td>
</tr>
<tr>
<td></td>
<td>Scarcity of transportation</td>
<td>Inactivity of Local Commission</td>
</tr>
<tr>
<td></td>
<td>Lack of land tenure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of community cohesion</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>WOMEN</strong></td>
</tr>
<tr>
<td></td>
<td>1. Water supply</td>
<td>1. Land tenure</td>
</tr>
<tr>
<td></td>
<td>2. Land tenure</td>
<td>2. Job services &amp; employment</td>
</tr>
<tr>
<td></td>
<td>5. Sewage system</td>
<td>5. Water supply</td>
</tr>
<tr>
<td>PRIORITIES</td>
<td>&quot;BASIC NEED&quot;</td>
<td>PREVENTION OF DISEASE</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>LAND TENURE</td>
<td>* to have a place where to live (Y)</td>
<td></td>
</tr>
<tr>
<td>WATER SUPPLY</td>
<td>* because we have no place where to put excreta (W-Y)</td>
<td>* to improve the building (W-M)</td>
</tr>
<tr>
<td>SEWAGE SYSTEM</td>
<td>* to avoid children playing in dirty places (M)</td>
<td>* to have privacy (W-Y)</td>
</tr>
<tr>
<td>FACILITY</td>
<td>* because we can die before reaching</td>
<td>* because the health facility is far (Y-M)</td>
</tr>
<tr>
<td>JOBS/EMPLOYMENT</td>
<td>* to find work (M)</td>
<td>* because a formal work is very difficult</td>
</tr>
<tr>
<td>SCHOOL</td>
<td>* to learn individual hygiene (M)</td>
<td>* because it is the school does not work well (M)</td>
</tr>
<tr>
<td>GARBAGE COLLECTION</td>
<td>* to avoid the bad smell (Y)</td>
<td>* to live better (M)</td>
</tr>
<tr>
<td>POLICY</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 3a Cristo e Vida: community action in PEC

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>ACTIONS</th>
<th>WHEN</th>
<th>PROBLEMS ENCOUNTERED DURING THE ACTION</th>
<th>EXTERNAL SUPPORT RECEIVED</th>
<th>RESULTS ACHIEVED</th>
<th>FURTHER SUPPORT DESIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Commission (LC)</td>
<td>SQUATTING (invasion and settling shacks according to an organized plan)</td>
<td>March 1990</td>
<td>One person advised URBIS about the presence of the squatters; URBIS demolished the shacks</td>
<td>Celia</td>
<td>The squatter settlement still exists; tax land distributed</td>
<td>Visit by the governor; bricks and concrete</td>
</tr>
<tr>
<td></td>
<td>LANDING (vindication to the institution proposed to urban planning URBIS)</td>
<td>March 1990</td>
<td>At the beginning URBIS refused to give permission to remain in the area; &quot;URBIS chief is unpolite man&quot;</td>
<td>Celia and Silvio</td>
<td>URBIS gave permission for 15 houses</td>
<td>A politician to help us to get land tenure before elections</td>
</tr>
<tr>
<td></td>
<td>WATER SUPPLY (vindication to the water company EMBASA)</td>
<td>March 1990</td>
<td>No answer came from EMBASA when they asked for water</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>WATER SUPPLY (collection of money to buy the necessary equipment for illegal connection)</td>
<td>September 1990</td>
<td>Money collected is not enough (not everybody gave money); money had to pay for others (poors); difficult to find the &quot;piece of tube&quot; (only EMBASA has it); the price of the &quot;piece of tube&quot; increases daily; lack of interest, motivation, knowledge, cohesion, solidarity</td>
<td>None</td>
<td>Identified the place where to make connection; mobilized money to work; achieved some equipment and tools</td>
<td>The &quot;piece of tube&quot;; materials to make the connection</td>
</tr>
<tr>
<td></td>
<td>BASIC SANITATION (vindication to the municipality)</td>
<td>Early (7) 1990</td>
<td>No answer came from Celia and Silvio (MODEMO)</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>
|                        | | | | | | Information not expressed

### Table 3b Cristo e Vida: community organization

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>SUPPORT RECEIVED IN SETTING UP ORGANIZATION</th>
<th>PROBLEMS ENCOUNTERED</th>
<th>SUPPORT DESIRED</th>
<th>SCHEMES OF FOLLOW-UP</th>
<th>FUTURE CHANGES DESIRED</th>
<th>SUPPORT DESIRED</th>
<th>FUTURE INTERESTS</th>
<th>POSSIBLE COMMUNITY CONTRIBUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Commission (LC)</td>
<td>Silvia and Celia (MODEMO) (they have given the idea, directed and supported the whole process)</td>
<td>Lack of follow-up by Silvia; LC has difficulties to work alone; inactivity of the LC; no legal registration of the LC; lack of cohesion among LC members; misunderstanding between LC members; lack of information on the existence of the LC; lack of people confidence with the work of LC</td>
<td>Mediation with institutions by somebody more powerful; somebody interested about this area; external people to stimulate participation</td>
<td>Monthly meetings of LC with MODEMO</td>
<td>Formalize the LC in Resident Association; register the members for the organization; a secretary to record decisions</td>
<td>More support from MODEMO; improve LC performances; support from Celia and Silvio</td>
<td>To get water supply; to claim together to work together</td>
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<td>From DSPL</td>
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</tbody>
</table>
Joao Pereira da Silva/ man/ 27 years old/ resident of Cristo é Vida

Life history

-Was born in 1963 in Juazeiro (Bahia, Brazil).
-When he was a young boy worked together with his family in the fields.
-In 1972 moved to Petrolina (Pernambuco, Brazil) to work with a family as a vendor in a small grocery store. Several years later, members of the same family invited him to work in Salvador.
-Moved to Salvador when 18 year old, to work in the grocery store and - two years later - as a mason.
-In Salvador he lived in Beiru (a peripheric bairro of Salvador) in a rented room. In 1983 he and his sister moved to an area close to Cristo é Vida and rented a room in a friend's house for 1 year. Throughout this time he worked to build a shack near by. His brother joined him, and got himself another lot to build his own shack. "Myself, I do not like squatters. I am afraid of them. Here in Salvador everything is different from Juazeiro, where nobody squat anywhere. I saw people squatting the first time here. Now I think everybody has the right to live in some place. I decided to squat too".
-He got married and has 4 children. He has a earth house with 3 rooms and just started to build a new one with bricks. He works as a mason and now is building a church in a bairro near Cristo é Vida. He has a great pride of his job.
- Refers the story of Cristo é Vida and the fight to remain in this settlement. "URBIS tried to expels us but it was not possible because we were organized". Refers to the importance of their organization and the problems due to lack of participation. To motivate people, he thinks, they have to achieve the land tenure.
-For him Cristo é Vida is a nice place where to live. "Poor people cannot choose a place to live. And when we find one it is nice".
5.2.2 Case study: Direito de Morar

The area of Direito de Morar can be approximated in 50,000 sq. meters with about 2,000 inhabitants. The shacks are approximately 350, and most of them are set on very steep slopes. Pathways are narrow staircases cut in the sandy ground. The general appearance is of a poor, quite recent settlement in fast expansion (people can be seen working to improve their shacks or building new ones). Many people are on sight, and among them many children. Some shacks advertise home products for sale (ice creams, sweets, drinks, cigarettes, coiffeur services, etc.). There is little or no vegetation, except for some banana or other tropical fruit tree. The results of our data collection are reported below according to the same scheme used for the preceding case study (see Figures 5, 6, 7, 8 and Tables 4, 5, 6a, 6b).

Figure 5 The squatter community of Direito de Morar. Note the steep slope and the many children in sight.
Figure 6 Transect of Direito de Morar (11.9.1990)

PROBLEMS

- Traffic accidents
- Misunderstanding with neighbors
- Lack of water tenure
- Houses small, poorly built, or destroyed
- Lack of safe drinking water
- Preserved and shared pathways (difficult access)
- Landslides and floods
- Lack of proper rain drainage
- Illegal connection with water pipe
- Illegal connection with electrical line
- Accumulation of garbage
- Lack of sanitation (open drain of waste water)

SPEW PLANTED WELL

AS IN THE EAST SIDE

AS IN THE
OPPOSITE SIDE

POSITIVE ASPECTS

- Garbage disposal and collection
- Bus transportation
- Shops
- Credit banks
- Job opportunities
- Telephone
- Health center
- Police station
- Good relationship with neighbors
- Water and electricity free
- Area near every rail
- Fruits from tropical trees
- Place for community meetings

NOTE: BACTERIOLOGICAL ANALYSIS OF WATER: EAST SIDE: NOT DRINKABLE (TOTAL COLIFORMS: >16/100 mL; Fecal Coliforms: 22/100 mL)

WEST SIDE: NOT DRINKABLE (TOTAL COLIFORMS: 22/100 mL; Fecal Coliforms: 22/100 mL)
Figure 7  Sketch map of Direito de Morar (11.9.1990)

1. SCHOOL
2. OLD POLICE STATION
3. SUPERMARKET
4. HEALTH CENTER
5. KINDERGARTEN
6. SOCIAL CENTER
7. MEETING SQUARE
8. BUNO'S HOUSE (MOREMO)

N

AREA OF SETTLEMENT

SCALE: 1:200
1988
- Squatting of the area attempted 4 times by different groups without success (Police interventions)

February 1989
- Squatting organized by Modemo that immediately helps setting up a local commission
- In 2 weeks 20 houses are built
- Expulsion of squatters by police on the request of a self-claimed landlord
- Squatting is set up again and again, after every intervention by the police (on the request of UEBIS)

March 1989
- Street demonstration for land tenure
- Contacts with UEBIS President
- Meeting with Governor who gives informal permission to stay (no more expulsions by police)

May 1989
- Illegal connection with water supply and electricity are established

June 1989
- Street demonstration to gain land tenure
- One case of leptospirosis
- A young girl is raped
- Aggression towards a member of local commission
- Landslide after rain
- One house burned (without victims)
- Local commission is very active in selecting new squatters, controlling land distribution and managing the area

October 1989
- Floods after strong rains

November 1999
- Self-organized community census, 450 families registered

January 1990
- Aggression towards a member of local commission

May 1990
- One more case of sexual violence against a person who does not live in the settlement
- One house burned (without victims)

July 1990
- Two car accidents involving children

September 1990
- Street demonstration for land tenure in Miepade Square (Salvador Center)
- Meeting with UEBIS President, dispute with Modemo leader
- Modemo gets the support of a lawyer (Lawyers Guild of Brazil)

October 1990
- Number of robberies increases
- The community decides to elect a new local association replacing the original local commission
Table 4  Direito de Morar: community environmental awareness and PEC priorities

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
<th>YOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;POSITIVE ASPECTS&quot;</td>
<td>&quot;ENVIRONMENTAL PROBLEMS&quot;</td>
<td>&quot;PEC PRIORITIES&quot; after DISCUSSION</td>
</tr>
<tr>
<td>Easy transportation</td>
<td>Nice social environment</td>
<td>Land tenure</td>
</tr>
<tr>
<td>Presence of a supermarket and a farmacy in the area</td>
<td>Supermarket, health facility, farmacy, bus stop are near</td>
<td>Housing</td>
</tr>
<tr>
<td>Working places are near</td>
<td>Easy transportation</td>
<td>Sewage system</td>
</tr>
<tr>
<td>The health facility is near</td>
<td>The friendship</td>
<td>Electricity supply</td>
</tr>
<tr>
<td>No rent to pay</td>
<td>There is a house for meetings</td>
<td>Control of drug problem</td>
</tr>
<tr>
<td>The school is near</td>
<td>There is a police station</td>
<td></td>
</tr>
<tr>
<td>Thieves and murders are unusual</td>
<td>There is a place where to live</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
<th>YOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of water</td>
<td>Illegal electricity connection</td>
<td>Lack of land tenure</td>
</tr>
<tr>
<td>Lack of sewage system</td>
<td>Lack of water</td>
<td>Social conflicts</td>
</tr>
<tr>
<td>Unfair distribution of land</td>
<td>Lack of sewage system</td>
<td>Poor housing</td>
</tr>
<tr>
<td>Lack of latrines</td>
<td>Lack of proper pathways</td>
<td>Illegal electricity connection</td>
</tr>
<tr>
<td>Illegal electricity connection</td>
<td></td>
<td>Lack of water</td>
</tr>
<tr>
<td>Lack of proper stoves</td>
<td></td>
<td>Lack of sewage system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
<th>YOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Land tenure</td>
<td>1. Land tenure</td>
<td>1. Land tenure</td>
</tr>
<tr>
<td>2. Housing</td>
<td>2. Water supply</td>
<td>2. Sewage system</td>
</tr>
<tr>
<td>3. Sewage system</td>
<td>3. Electricity supply</td>
<td>3. Health care facility</td>
</tr>
<tr>
<td>4. Electricity supply</td>
<td>4. Sewage system</td>
<td>4. Employment opportunities</td>
</tr>
<tr>
<td>5. Water supply</td>
<td>5. Control of drug problem</td>
<td>5. Garbage collection</td>
</tr>
<tr>
<td>PRIORITIES</td>
<td>&quot;BASIC NEED&quot;</td>
<td>PREVENTION OF DISEASE</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LAND TENURE</td>
<td>* to have a place where to live (W)</td>
<td>* to avoid insecurity (Y-M)</td>
</tr>
<tr>
<td></td>
<td>because we have no other place to go (Y)</td>
<td></td>
</tr>
<tr>
<td>SEWAGE SYSTEM</td>
<td>* because we do not know what to do</td>
<td>* to avoid death (W)</td>
</tr>
<tr>
<td></td>
<td>with excreta (M)</td>
<td>* to avoid the bad smell (M)</td>
</tr>
<tr>
<td></td>
<td>* because it is impossible to build latrines (Y) for all (M)</td>
<td></td>
</tr>
<tr>
<td>ELECTRICITY SUPPLY</td>
<td>* to use it at home (W)</td>
<td></td>
</tr>
<tr>
<td>WATER SUPPLY</td>
<td>* because the well is polluted (W-Y-M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to get the indispensible water to drink and wash (Y-M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>it is impossible to live without water (Y)</td>
<td></td>
</tr>
<tr>
<td>HOUSING</td>
<td>* because it is the most important problem (Y)</td>
<td>* to prevent diseases (W-Y-M)</td>
</tr>
<tr>
<td></td>
<td>* to be protected against humidity and cold (Y)</td>
<td>* to prevent diseases from falling upon us (W-M)</td>
</tr>
<tr>
<td></td>
<td>* because we lack maternity care (W-Y)</td>
<td>* to get safety for children (W)</td>
</tr>
<tr>
<td></td>
<td>* because we lack emergency care (W-Y)</td>
<td></td>
</tr>
<tr>
<td>HEALTHCARE FACILITY</td>
<td>* because we lack emergency care (W-Y)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to maintain good health (Y-M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* because the existing health facility is far (W-Y)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* because now it is difficult to get health care (W)</td>
<td></td>
</tr>
<tr>
<td>EMPLOYMENT OPPORTUNITIES</td>
<td>* to get a job (M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to avoid working in low paid and hazardous jobs (M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to find a place where to deposit garbage (W-Y)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to prevent that children play with garbage (Y)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to get a place where to deposit garbage (M)</td>
<td></td>
</tr>
<tr>
<td>GARBAGE COLLECTION</td>
<td>* to prevent accumulation on the streets (W)</td>
<td>* to prevent children play with garbage (Y)</td>
</tr>
<tr>
<td></td>
<td>* to prevent children play with garbage (M)</td>
<td></td>
</tr>
<tr>
<td>CONTROL OF DRUG PROBLEM</td>
<td>* because people do not know it on a disease (M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to prevent children to go outside the house (M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* to prevent children to go outside the house (M)</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Direito de Morar: basic interests in PEC expressed during the focus group.
### Table 6a: Direito de Moran community action in PEC

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>ACTIONS</th>
<th>WHEN</th>
<th>PROBLEMS ENCOUNTERED DURING THE ACTION</th>
<th>EXTERNAL SUPPORT RECEIVED</th>
<th>RESULTS ACHIEVED</th>
<th>FURTHER SUPPORT DESIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>* &quot;legal&quot; - neighbors called for police intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Siuve (MODEMO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*cultural practices by land owner, police and URBIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*p. Tel. d. demolished the houses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*helped organizing the squatting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*promised people to build again their homes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*URBIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*distribute drugs &amp; milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Celia (Women Association of Unidos Venceremos)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*give advice and support in mediation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>with authorities</td>
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<td></td>
<td></td>
<td></td>
<td>*February 1989</td>
<td></td>
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</tr>
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<td></td>
<td></td>
<td></td>
<td>*on going</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*consideration of needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*land distribution under control of LC after setting up</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*illegal connection done</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>*illegal connection done</td>
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<td></td>
<td></td>
<td></td>
<td>*illegal connection done</td>
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<td>*illegal connection done</td>
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<td>*illegal connection done</td>
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<td></td>
<td>*illegal connection done</td>
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<td>*illegal connection done</td>
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<td></td>
<td>*illegal connection done</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>*illegal connection done</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 6b: Direito de Moran community organization

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>SUPPORT RECEIVED IN SETTING UP ORGANIZATION</th>
<th>PROBLEMS ENCOUNTERED IN THE ORGANIZATION</th>
<th>SCHEMES OF FOLLOW-UP</th>
<th>FUTURE CHANGES DESIRED IN THE ORGANIZATION</th>
<th>SUPPORT DESIRED</th>
<th>FUTURE INTERESTS</th>
<th>POSSIBLE COMMUNITY CONTRIBUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MODEMO</td>
<td>*lack of coordination among LC members</td>
<td>weekly meetings</td>
<td>*to transform the LC into a Resident Association</td>
<td>political, organizational and economical</td>
<td>to get land tenure</td>
<td>to claim together</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*disagreement within LC in political strategy</td>
<td>(not regularly)</td>
<td>*to focus efforts</td>
<td>support from a more powerful organization</td>
<td>to build houses</td>
<td>to plan, implement, control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*absence of Siuva and Esmeralda</td>
<td></td>
<td>*to use its power better</td>
<td>From DSPL;</td>
<td>to have a training in human relationships</td>
<td>together whatever is done</td>
</tr>
<tr>
<td>Local Commission (LC)</td>
<td></td>
<td></td>
<td></td>
<td>*to give more information to people</td>
<td>*medication with authorities</td>
<td>to set up a workshop</td>
<td>manual labour</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to foster seminars with external people</td>
<td>*technical orientation in:</td>
<td>to train children in productive activities</td>
<td>financial contributions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to change meeting place, subjects, tools</td>
<td>*health care</td>
<td>stronger control of the new settlers</td>
<td>to pay the houses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*community pharmacy</td>
<td>*set up a brick factory</td>
<td>(month by month)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*community garden for medicinal plants</td>
<td>health education</td>
<td>to amplify benefits to all people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to get basic sanitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to get land tenure</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to build houses</td>
<td></td>
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<td></td>
<td></td>
<td>*to have a training in human relationships</td>
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<td></td>
<td></td>
<td>*to set up a workshop</td>
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<td></td>
<td></td>
<td></td>
<td>*to train children in productive activities</td>
<td></td>
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<td></td>
<td></td>
<td>*stronger control of the new settlers</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to set up a brick factory</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>health education</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*to get education in garbage disposal</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*manpower in social and health programmes</td>
<td></td>
</tr>
</tbody>
</table>
Maria do Carmo Alves da Silva/ woman/ 28 years old/ resident of Direito de Morar

Life history

- Was born in Lustosa (Bahia, Brazil) in 1962.
- Her father was a street paddler and her mother worked in a tobacco factory. She refers that her father was always drunk and frequently beat his wife. He also had another family. In 1971 the tobacco factory was closed. Maria do Carmo's mother moved to Conceicao do Jacuipe after she was abandoned by her husband. Before that, she distributed her 6 children among her relatives and god-mothers. In the new town the mother started again working in a tobacco factory. In a few years she managed to get all her children back.
- Maria do Carmo - who did not have a god-mother to be left with - was the first to join her mother in Conceicao do Jacuipe. She was 9 years old and started working at home with the tobacco that her mother brought from the factory ("my mother received a salary based on the amount of work done, she did not have a fixed pay. For this reason I had to help her working at home because it was not possible at my age to get a job at the factory"). She, and later her brothers and sisters, worked from 8 o'clock in the morning to midnight every day ("with our work during the week we got more money than my mother in the factory").
- She went to school when she was a little girl but "I did not learn anything. After a few months I left the school because I needed to work".
- When she was 10 years old she went to Salvador to live and work for a family. She remained with them for 2 or 3 years without any news of her own family ("my mother did not have my address") and refers of having been physically abused by her employers.
- In 1980 when she was 18 year old she got her worker registration and a job in a tobacco factory. She received a minimum salary and worked from 7 o'clock a.m. to 5 o'clock p.m. She was fired after 7 months and got a new job in a sugar cane plantation.
- In 1981 she got married and soon conceived 2 children (now 9 and 8 years old). Her husband moved to Salvador in 1984 because he could not find a job in Conceicao do Jacuipe. In this period she had a job as a domestic worker for a family and took care of the children.
- In 1986 she also moved to Salvador with her children. They all settled in a squatter area (Jardim Cajazeiras, for 3 years and 4 months). In 1990 she moved to Direito de Morar ("Zé - my husband - heard about that squatting and came here. He found a lot and took it for us. Then he met Silvio of MODEMO and he explained that it was not possible to remain in that lot. Silvio and other people helped us to clean a new lot and build our..."
shack. I was sick and Ana (Silvio's wife) and Zé went with me to the hospital"). The situation in Jardim Cajazeiras was terrible ("there was an open sewage in front of my house and when it rained, everything was flooded. I was always sick. I got a pneumonia there"), but there were problems also to remain in the new squatter settlement ("my husband built our shack one Sunday. On Monday morning URBIS came and threw it down. We built it again, and again the police and URBIS workers came to throw it down. One of them told me 'Senhora, you and these children must leave this place because I am going to throw down your shack'. I told him I would not go away. I do not have another place to go. He answered me 'go back to the place where you lived before, but leave this place here!'. I was very anguished").

- Maria is still living in that very place with her family and her sister and brother.
- After she moved to Salvador she never worked in a factory. She does cleaning jobs in Castelo Branco and washes clothes to get some money. Her husband does not have a formal work; he told me that in this way it is possible to get more money. With a formal job he can only get less than one minimum salary". 

-50-
5.2.3 Case study: Baixa da Bica

The area of Baixa da Bica can be approximated in 15,000 square meters with about 400 inhabitants. There are about 80 living quarters, distributed on the steep sides and on the bottom of a gully. Some of them are actual brick-and-concrete houses, but they look old and in a very poor state of maintenance. Some houses are "for sale", some abandoned. Few people can be seen in the settlement. Many of them are elderly. Some trees and bush vegetation are scattered around. At the bottom of the gully there is a large, slow-paced stream. The water is black and foul smelling with floating plastic bags, wood and other debris. Some of the lower sited houses are water-logged. The results of our data collection are reported below according to the same scheme used for the two preceding case studies (see Figures 9, 10, 11, 12 and Tables 7, 8, 9a, 9b).

Figure 9 The squatter community of Baixa da Bica. Note the polluted stream and the houses sited very close to the stream banks.
Figure 10 Transect of Baixa da Bica (19.9.1990)

PROBLEMS:
- Illegal settlement
  - Lack of land tenure
  - Illegal connection with water pipe
  - Illegal connection with electricity line
  - Houses crowded
  - Steep, unpaved pathways
  - Lack of proper road drainage
  - Erosion

- River polluted
- Polluted wells
- prototype: backwash falls from garbage collection area
- Flooding from discharge of sewage system
- Water, level
- Susceptible to house foundations
- Siltation and utilisation
- Damage due to floodplain

LEGAL SETTLEMENT
Casteiro Branco
(1a ETAPA)

GULLY
(EAST SIDE)

LE.6-AU SETTLEMENT
IN AVELAR

BOTTOM GULLY

GULLY
(WEST SIDE)

- Oil pollution due to proximity of transport of slum

POSITIVE ASPECTS
- Garbage deposit and removal
  - OIS transport
  - Shops
  - Job opportunities
  - Telephones

- Legal connection with water pipe
- Legal connection with electricity line
- Sewage system
- Football field

- Spare houses
- Space between houses
- Grills from tropical trees
- Control from wells
- Good relationship with neighbours
- Quiet environment

NOTE: # Bacteriological analysis of water: not drinkable (Total coliforms: 0/100 mL; fecal coliforms: <2/100 mL)

** Bacteriological analysis of water: not drinkable (Total coliforms: 5/100 mL; fecal coliforms: <2.1/100 mL)
Figure 11 Sketch map of Baixa da Bica (19.9.1990)

1. Kindergarten
2. E. de Almeida's House (Parque)
3. School
4. Casa Repolo Shop
5. Bus Stop
6. Football Field
7. Health Centre
8. TSS Garage
9. Paving Factory

Area of Settlement

Legend:
- 53 -
Figure 12  Historical profile of Baixa da Bica

- Forest, springs, river, fishing

1969/72
- The river is polluted by Transur (company of urban transportation) with motor oil discharge

1970
- First 5 houses on the top of the gully

1975
- Real estate agency sells land parcels
- Pedro, the first settler at the bottom of the gully arrives

1977
- Number of houses increases in the squatting area as well as in the wider neighborhood

1978
- The spring dries out
- River is increasingly polluted

1981
- 100 houses, the settlement reaches its maximum number of families

September 1983
- Petitions to Engasa and Coblga to get connections to water and electricity supplies

1983
- Several houses destroyed by rains, help asked to municipality and Procaeb
- Some residents receive materials to repair their houses from Procaeb and municipality (months after the rains)

1984
- Floods become permanent. Serious damages to houses

1986
- Families start to leave the area

1988
- Municipal elections. Politicians promise help and specific interventions (e.g. sewage system)

1989
- Heavy rains throughout the year. Many houses damaged by floods
- One person has an accident on the steep pathway and is admitted to the hospital

1990
- Homicide in the area
- One more person is hurt on the steep pathway and admitted to the hospital

October 1990
- Flood worsens because of heavy rain
- Still no sewage system or flood protection in place
- One more family leaves the area
- 80 families are left (~400 inhabitants)
### Table 7  Baixa da Bica: community environmental awareness and PEC priorities

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
<th>YOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Quiet environment</td>
<td>* Good relationship with neighbours</td>
<td>* Water from wells</td>
</tr>
<tr>
<td>* Water from wells</td>
<td>* Quiet environment</td>
<td>* Good relationship with neighbours</td>
</tr>
<tr>
<td>* Good relationship with neighbours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
<th>YOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Pollution of the river</td>
<td>* Pollution of the river</td>
<td>* Garbage accumulation</td>
</tr>
<tr>
<td>* Lack of sewage system</td>
<td>* Steep pathways</td>
<td>* Pollution of the river</td>
</tr>
<tr>
<td>* The floods</td>
<td>* Lack of water</td>
<td>* Steep pathways</td>
</tr>
<tr>
<td>* Garbage accumulation</td>
<td>* Lack of health facility</td>
<td>* The mud</td>
</tr>
<tr>
<td>* Diseases</td>
<td>* Lack of police station</td>
<td>* The floods</td>
</tr>
<tr>
<td>* Steep, not paved pathways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Lack of electricity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Lack of water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* The football games</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* The sewage from Castelo Branco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Heavy transportation of gas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&quot;PEC PRIORITIES&quot; after DISCUSSION</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMEN</td>
<td>MEN</td>
<td>YOUTH</td>
</tr>
<tr>
<td>1. Sewage system</td>
<td>1. Sewage system</td>
<td>1. Sewage system</td>
</tr>
<tr>
<td>2. Health care facility</td>
<td>2. Pathways improvement</td>
<td>2. Garbage collection</td>
</tr>
<tr>
<td>5. Garbage collection</td>
<td>5. Garbage collection</td>
<td>5. Health care facility</td>
</tr>
</tbody>
</table>
Table 8  Baixa da Bica: basic interests in PEC expressed during the focus group

<table>
<thead>
<tr>
<th>PRIORITIES</th>
<th>&quot;BASIC NEED&quot;</th>
<th>PREVENTION OF DISEASE</th>
<th>QUALITY OF LIFE</th>
<th>CONDITION TO SOLVE ANOTHER PROBLEM</th>
<th>ECONOMIC INTEREST</th>
<th>SOCIAL INTEREST</th>
<th>OPPORTUNITY / FEASIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEWAGE SYSTEM</td>
<td>• to prevent destruction of streets when it rains (M)</td>
<td>• to avoid bad smell (M-Y)</td>
<td>• to be able to get outside even when it rains (Y)</td>
<td>• after getting it we could ask for land tenure</td>
<td>• to prevent damage to our houses (M)</td>
<td>• to be able to receive visits by our friends (Y)</td>
<td>• because it is very difficult to solve the problem by ourselves (M)</td>
</tr>
<tr>
<td>STREET IMPROVEMENT</td>
<td>• to avoid hard climbing (W-Y-M)</td>
<td>• to facilitate sick people and women getting around (Y)</td>
<td>• to give access to cars (W-M)</td>
<td>• to prevent pollution of the river (W)</td>
<td>• to use our latrines (M)</td>
<td>• to organize parties even when it rains (Y)</td>
<td></td>
</tr>
<tr>
<td>HEALTHCARE FACILITY</td>
<td>• because it is important for life (M)</td>
<td>• to avoid dying for lack of it (M)</td>
<td>• to get care of the children at night (M)</td>
<td>• to prevent diseases (W-Y)</td>
<td>• to prevent pollution of land and river (W-Y-M)</td>
<td>• to have more security in our environment (Y)</td>
<td></td>
</tr>
<tr>
<td>GARBAGE COLLECTION</td>
<td>• to prevent diseases (W-Y)</td>
<td>• to avoid the bad smell (M)</td>
<td>• to prevent pollution of land and river (W-Y-M)</td>
<td>• to prevent river obstruction and floods when it rains (W-Y-M)</td>
<td>• to prevent pollution of pits and wells (Y)</td>
<td>• to prevent attraction of rats (W-Y-M)</td>
<td></td>
</tr>
<tr>
<td>FOOTBALL REGULATION</td>
<td>• because it is important for the children (M)</td>
<td>• to prevent diseases (W-Y)</td>
<td>• to avoid the bad smell (W)</td>
<td>• to prevent pollution of land and river (W-Y-M)</td>
<td>• because the health facility is far (W-M)</td>
<td>• to prevent conflicts with neighbours (W)</td>
<td></td>
</tr>
<tr>
<td>SCHOOL FACILITY</td>
<td>• because the school we have lacks many things (Y)</td>
<td>• to be able to get a job after attending school (Y)</td>
<td>• to prevent breaking of nails and tiles by the ball (W)</td>
<td>• to prevent breaking of nails and tiles by the ball (W)</td>
<td>• to be able to get a job after attending school (Y)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLICE FACILITY</td>
<td>• because there is only one police facility and it is very far (W)</td>
<td>• to prevent robbery (Y)</td>
<td>• to prevent robbery (Y)</td>
<td>• to prevent robbery (Y)</td>
<td>• because the health facility is far (W-M)</td>
<td>• to stop the drug users for us from our area (Y)</td>
<td></td>
</tr>
</tbody>
</table>
Table 9a Baixa da Bica: community action in PEC

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>ACTIONS</th>
<th>WHEN</th>
<th>PROBLEMS ENCOUNTERED DURING THE ACTION</th>
<th>EXTERNAL SUPPORT RECEIVED</th>
<th>RESULTS ACHIEVED</th>
<th>FURTHER SUPPORT DESIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEWAGE SYSTEM (petition to municipality)</td>
<td>before 1983</td>
<td>lack of commitment by politicians and authorities</td>
<td>Esmeralda (PROCAB)</td>
<td>legal connection to water achieved years later (not as result of the petition)</td>
<td>none</td>
<td>From ISP to make a sewage system</td>
</tr>
<tr>
<td>WATER SUPPLY (petition to municipality and to the water company EMBASA)</td>
<td>1983</td>
<td>lack of interest on the part of some people</td>
<td>Esmeralda (PROCAB)</td>
<td>organization of meetings</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>(actions carried out by individuals or ad hoc groups e.g. writing and signing a petition; there is no organization with a name and elected representatives)</td>
<td>lack of initiative</td>
<td>Centros Social Urbano</td>
<td>registration of inhabitants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTRICITY (petition to municipality and to the electricity company COELBA)</td>
<td>1983</td>
<td>lack of cohesion</td>
<td>organization of petitions</td>
<td></td>
<td></td>
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<tr>
<td>HOUSING (petition to municipality and to the institution proposed to urban planning URBIS)</td>
<td>1983</td>
<td>lack of time</td>
<td>organization of projects</td>
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<tr>
<td></td>
<td></td>
<td>lack of money</td>
<td></td>
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<td></td>
<td></td>
<td>inadequate planning of activities</td>
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</tbody>
</table>

Table 9b Baixa da Bica: community organization

<table>
<thead>
<tr>
<th>COMMUNITY ORGANIZATION</th>
<th>SUPPORT RECEIVED IN SETTING UP ORGANIZATION</th>
<th>PROBLEMS ENCOUNTERED IN THE ORGANIZATION</th>
<th>FUTURE CHANGES DESIRED IN THE ORGANIZATION</th>
<th>SUPPORT DESIRED</th>
<th>FUTURE INTERESTS</th>
<th>COMMUNITY CONTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>none</td>
<td>lack of person or organization helping us</td>
<td>to set up a Resident Association</td>
<td>money to rent a house for a future association</td>
<td>to get sewage system</td>
<td>to claim together</td>
</tr>
<tr>
<td>(only individuals or ad hoc group for action; there is no organization with a name and elected representatives)</td>
<td></td>
<td>lack of management capacities</td>
<td>to one person available to represent us</td>
<td>information about how organize an association</td>
<td>to work together</td>
<td>to transport materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lack of a house for an association</td>
<td>one person with knowledge working full time</td>
<td>technical orientation</td>
<td>to support in what is done</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>nobody took the direction</td>
<td></td>
<td>somebody with more power to guide and coordinate</td>
<td>to go away</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>From ISP:</td>
<td>to do something to increase</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>the value of houses and area</td>
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<td></td>
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<td></td>
<td></td>
<td>municipality wants to build a road in this area</td>
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<td></td>
<td>municipality will move away people to other area</td>
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<td></td>
<td></td>
<td>to make a sewage system</td>
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<td></td>
<td>to drain the river</td>
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<td></td>
<td></td>
<td>to go away</td>
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<td>to make a sewage system</td>
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<td>to transform the river in a open drain</td>
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</tbody>
</table>

-57-
Gilberto Almeida Santos /man/ 18 years old/ resident of Baixa da Bica

Life history:

- Born in 1972 in Iaçú (Bahia, Brazil).
- Came to Salvador in 1974 (age 2) after his father got sick (mental disease) and for the decision of his sister.
- His family arrived in Marechal Rondon, a suburban quarter of Salvador and lived there for more or less 3 years in a rented house.
- When he was 3 years old he ingested some medicines of his father and stayed at the hospital for months (he does not know exactly how long and why).
- In 1977 his family moved to Baixa da Bica, but he went to live with his grandmother in a near-by quarter (Dom Avelar). After several years he and his grandmother moved the bairro of Aguas Claras (more peripheral than Dom Avelar) because it was more economic to live there.
- In 1982 his grandmother died and he moved to his parents house in Baixa da Bica.
- Has 7 brothers and sisters and only 4 live now in his parents house.
- Studied from 1979 until 1983 and did not finish the primary school. Left the school because of the economic situation of his family and started to work. In his opinion it was too difficult to study and work at the same time.
- His first work was ice cream vendor on the streets. Now he works selling coffee near the Paes Mendonça Supermarket stock-room because he can find a lot of clients and work fast. Usually he works 2 or 3 hours in the morning and almost the same in the late afternoon.
- In 1986 he tried to continue his studies during the night but he gave up in 1988. He was too tired and was difficult to follow up the lessons. He left the school again to start working also in the afternoon (before he had worked only during the morning).
- Refers that his profit as coffee vendor is enough to buy the goods and materials needed to maintain his family.
- Would like to work in a car maintenance shop but expresses this desire as a very distant possibility.
- Expresses the desire to work with the community to change the situation. Refers the problem of the lack of sewage system and poor drainage of the river as a nuisance for everybody "with these problems it is not possible to have a good life". Likes to live in Baixa da Bica but to remain there they need external support to change the bad conditions and survive.
- Believes that the lack of organization in Baixa da Bica is a difficulty and it is important to work together with the inhabitants of Dom Avelar and Castelo Branco, who have their same problems, to get some results in their claims with public authorities.
- When asked if the youth from Baixa da Bica has interests in developing some kind of community work he hesitated in answering and said: "there is plenty of youth here but everyone is waiting for some external help and motivation".

5.3 District stakeholders in PEC

In the district of Pau da Lima we identified the following stakeholders:

1) DSPL (Distrito Sanitario de Pau da Lima): Health District of Pau da Lima.
2) AISPO (Associazione Italiana per la Solidarieta' tra i Popoli): Italian NGO.
3) Health Coordination of the Italian Cooperation in Brazil.
4) PROCAB (Projeto Castelo Branco): Brazilian NGO.
5) MODEMO (Movimento de Defesa da Moradia): Movement Pro Housing Rights.
6) FABS (Federacao de Associacoes de Bairros de Salvador): Federation of Quarters Associations of Salvador.
7) SEMADE (Secretaria do Meio Ambiente e Defesa Civil): Secretary of Environment and Civil Defence of the municipality of Salvador.
9) GAMBA (Grupo Ambientalista da Bahia): Environmental Group of Bahia.
10) Pastoral da Saude: Catholic health organization.

The interests and activities of the above stakeholders (SO3) and their possible contributions for PEC, conditions fostering success and means and tools for action (SO4) are summarized in the following matrixes (Tables 13a, 13b, 14).
<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>BASIC INFORMATION</th>
<th>MAIN INTERESTS</th>
<th>WORKING PARTNERS</th>
<th>ACTIVITIES INVOLVED</th>
<th>MAIN RESULTS ACHIEVED</th>
<th>PROBLEMS ENCOUNTERED</th>
<th>LESSONS LEARNED</th>
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</thead>
<tbody>
<tr>
<td>DSPL</td>
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<tr>
<td>(Health Dept. of Salvador)</td>
<td>1999 (March)</td>
<td>Increase health services</td>
<td>University &amp; other public institutions</td>
<td>University</td>
<td>Increase health services</td>
<td>Health system &amp; community development</td>
<td>Resource constraints</td>
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<tr>
<td>Peau de caf (PM)</td>
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<td>(Defence Moviment)</td>
<td>1988, begins the support in the building of S Raphael hospital</td>
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<td>AISPO</td>
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<tr>
<td>(Italian Association of Solidarity Among People)</td>
<td>1988 (December)</td>
<td>Support activities in the Jequitinhonha Valley &amp; in the different Brazilian States</td>
<td>Italian NGO</td>
<td>Italian NGO</td>
<td>Support activities in the Jequitinhonha Valley</td>
<td>Italian NGO</td>
<td>Lack of resources and community participation</td>
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<tr>
<td>Dr. Rosa V. Femandes</td>
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<tr>
<td>(team leader of the local NGO Pau da Lima)</td>
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<td>Dr. Eugenio Foccoli</td>
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<tr>
<td>(coordinator)</td>
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<tr>
<td>CROSSOVER</td>
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<tr>
<td>(Italian NGO Fund)</td>
<td>1997 (February)</td>
<td>1998 (October)</td>
<td>National and international organizations</td>
<td>National and international organizations</td>
<td>Increase health services</td>
<td>National and international organizations</td>
<td>National and international organizations</td>
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<td>Dr. Renato Tasca</td>
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<tr>
<td>(team leader of the Pau da Lima project)</td>
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<tr>
<td>Dr. Eustigio Fidel</td>
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<tr>
<td>(DSPL manager)</td>
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<tr>
<td>PROGRAMS SUPPORTED</td>
<td></td>
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<tr>
<td>PROCAB</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(Catholic Braces Project)</td>
<td>1982</td>
<td>Support community in getting</td>
<td>Social Center of Caiozinho &amp; Social Services</td>
<td>Social Center of Caiozinho &amp; Social Services</td>
<td>Support community in getting</td>
<td>Social Center of Caiozinho &amp; Social Services</td>
<td>Lack of resources &amp; community participation</td>
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<td>interviewed:</td>
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<tr>
<td>Eunice Rebecchi (council of Salvator Mountain)</td>
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<tr>
<td>Dr. Maria Letícia</td>
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<tr>
<td>(DSPL manager)</td>
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<tr>
<td>LESSONS LEARNED</td>
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</tbody>
</table>

Table 13a: Stakeholders: interests and activities
<table>
<thead>
<tr>
<th>Stakeholders: interests and activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEMADE</strong></td>
</tr>
<tr>
<td>1. Development activities</td>
</tr>
<tr>
<td>2. Area of activity</td>
</tr>
<tr>
<td>3. Description</td>
</tr>
<tr>
<td>FABS (Federation of Associations of Bahia Lawyers)</td>
</tr>
<tr>
<td>Lawyers of Bahia (OAB)</td>
</tr>
<tr>
<td>Lawyers Association of Bahia (OAB)</td>
</tr>
<tr>
<td>Semadep (Seminário de Defesa e Ordem Política de Salvador)</td>
</tr>
<tr>
<td>(Secretary of the Environment and Natural Defense of Salvador)</td>
</tr>
<tr>
<td>Lauro Garcia (Secretary of the Executive Commission)</td>
</tr>
<tr>
<td>Commission of the Peace of Salvador (PASTORAL DA SAUDE)</td>
</tr>
<tr>
<td>(Cardinal Joao Francisco)</td>
</tr>
</tbody>
</table>

**MAIN RESULTS ACHIEVED IN EACH ACTIVITY**

- *Positive solutions of technical problems*
- *Enhanced awareness about environmental protection*
- *Contributions to the elaboration of the norms regulating urban life*
- *Improvement of the health status of people*
<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>POSSIBLE CONTRIBUTIONS</th>
<th>SPECIFIC SUGGESTIONS</th>
<th>IMPORTANT ACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSPL</td>
<td>1. to work with the communities 2. &quot;window&quot; service of consultation 3. information and assistance for communities 4. solution of technical problems 5. organization of seminars 6. training</td>
<td>It could be useful to implement the &quot;window&quot; service of consultation corresponding to the peculiarities of the area of the DSPL</td>
<td>organized communities</td>
</tr>
<tr>
<td>Health District</td>
<td>1. to work with the communities 2. &quot;window&quot; service of consultation 3. information and assistance for communities 4. solution of technical problems 5. organization of seminars 6. training</td>
<td>It could be useful to implement the &quot;window&quot; service of consultation corresponding to the peculiarities of the area of the DSPL</td>
<td>community organizations</td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Dr. Maria V. Farinates (health manager)</td>
<td>Consultations: 1. heterogeneity of community needs 2. &quot;we do not have a real power to solve all the problems&quot;</td>
<td></td>
</tr>
<tr>
<td>AISPO</td>
<td>1. support to all the DSPL activities in particular: support in research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Dr. Francesco</td>
<td>Consultations: 1. absent or non-existent articulation 2. facilitation of international relationships 3. importation of experiences within Brazil and Italy</td>
<td></td>
</tr>
<tr>
<td>PROCAB</td>
<td>1. present contacts with people and organization 2. credibility and trust from community and past experience (specifically in working with communities and in consultation, articulation and mediation) 3. lack of financial resources</td>
<td>It could be of great and useful help to restart the activities of the manufactory of sweets</td>
<td>organized communities</td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Dr. Renato Iaane (technical leader of the Pau da Lima project)</td>
<td>Consultations: 1. &quot;window&quot; service could be better covered</td>
<td></td>
</tr>
<tr>
<td>MDDM</td>
<td>1. to work in Barra do Rio 2. to recognize the Local Commissions and in order to give more representativeness to women and youth</td>
<td>DSPL could support in solving problems more linked with health and safety</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Simone Leal (president)</td>
<td>Consultations: 1. MDDM is not legally formalized 2. MDDM organization must improve 3. lack of financial resources</td>
<td></td>
</tr>
<tr>
<td>FABS</td>
<td>1. coordinate together with other organization or institutions 2. modernization of communities 3. setting schemes of follow-up 4. lack of financial support 5. lack of technical support 6. lack of human resources 7. lack of political support 8. there is no specific municipal laws</td>
<td>To implement existing projects (e.g. garbage disposal, reforestation, community gardens)</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Antsina Garcia (member of the Executive Commission)</td>
<td>Consultations: 1. there is no specific municipal laws 2. lack of financial support 3. lack of technical support 4. lack of human resources 5. lack of political support</td>
<td></td>
</tr>
<tr>
<td>SEANDE</td>
<td>1. institutional support when the Environment Council will start to work 2. facilitation, control and punishment regarding environment</td>
<td>Integration among public Institutions to work better</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Rita Ghera (coordinator)</td>
<td>Consultations: 1. SEANDE has no capability 2. lack of political support 3. there is no specific municipal laws</td>
<td></td>
</tr>
<tr>
<td>CMB</td>
<td>1. collaboration with other groups and institutions 2. collaboration with the DSPL 3. legal support 4. technical support 5. political support</td>
<td>It is very important to formalize the Social Committee of Environment</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Lucio Pinto (president)</td>
<td>Consultations: 1. necessity to be associated by other groups</td>
<td></td>
</tr>
<tr>
<td>GIMMA</td>
<td>1. collaboration with other groups 2. lack of financial resources</td>
<td>It is important to take into consideration the local culture and reality</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Renato Corti (coordinator)</td>
<td>Consultations: 1. lack of financial resources 2. lack of human resources</td>
<td></td>
</tr>
<tr>
<td>PASTORAL DA SAUDE</td>
<td>1. collaboration with the DSPL 2. &quot;window&quot; service could be better covered</td>
<td>The actual human resources of the DSPL are not enough to play a role of articulation in solving environmental problems of the district</td>
<td></td>
</tr>
<tr>
<td>INTERVIEWED:</td>
<td>Olindo Pinto (coordinate)</td>
<td>Consultations: 1. &quot;window&quot; service could be better covered</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 14 Stakeholders: possible contributions for Primary Environmental Care**
6. INTERPRETATION OF RESULTS

The results reported in section 5. will be now discussed and interpreted keeping in mind the general objective of the study, namely the identification and assessment of potential actors, conditions, means and tools to integrate P/IC and PEC in the health district of Pau da Lima.

6.1 PEC problems

The problems described in section 5.1 have clear and direct health and economic consequences for the district. In the course of our work we have found that these consequences are known and understood by the inhabitants of the squatter communities as well as by the DSPL and AISPO management and the other identified stakeholders. For instance, the following health consequences - among the most relevant for the local population (DSPL, 1990) can be directly related to one or more of the PEC problems reported for the district of Pau da Lima:

- gastro-entheric diseases (e.g. diarrheal diseases, typhoid fever, poisoning) related to unsafe water, lack of hygiene, inadequate food storage.
- malnutrition (especially in children and pregnant women) due to poor diet (inability to buy or produce food) and recurrent gastro-entheric diseases.
- parasitic infections (e.g. leptospirosis, ascariasis, amoebiasis, scabia infections) due to lack of hygiene, overcrowding, unsafe water and food, presence of many rats in close proximity with people.
- respiratory diseases (e.g. upper respiratory infections, tuberculosis) due to overcrowding, poor housing, unsafe working condition in occupations involving the release of air pollutants, etc.
- rheumatic diseases due to prolonged exposure to humid environments.
- infectious disease (e.g. hepatitis, measles, meningitis) related to overcrowding, lack of personal and community hygiene, lack of vaccination.
- accidental injuries due to unsafe living, neighborhood and working conditions such as shacks poorly built and in hazardous places, steep and muddy pathways, overcrowded living quarters.
- mental and behavioral problems (e.g. domestic violence, alcoholism, drug addiction) related to poverty, unemployment, personal insecurity, psychological stress.
The following economic consequences are also strictly related to the PEC problems identified in the district of Pau da Lima:

- high costs of curative activities incurred by the local health system (due to high disease prevalence);
- decreased value of land and housing properties (due to pollution, general uncleanliness, illegal neighbors, social tensions, etc.);
- decreased ability to work and decreased productivity (due to accidental disabilities, malnutrition, frequent diseases, lack of motivation, lack of training, illiteracy, lack of adequate transportation, etc.);
- limited possibilities to carry out productive activities at home (due to lack of water supply and electricity, small living quarters, poor access to transportation, land erosion, etc.);
- loss of homes, infrastructures, trees, topsoil, and domestic animals due to floods, landslides, fires.
- loss of stored food and garden products by animals (in particular rats).

From the above we infer that solving PEC problems should be a high, common concern of all individuals and institutions interested in health and economic development in the district.

Still, we would like to stress that the consequences of a given problem cannot be generalized for different communities. For instance, while in Cristo 6 Vida the garbage problem is mostly an issue of bad smell and attraction of rats and flies, in the community of Baixa da Bica uncollected garbage may block the water drainage and cause serious flooding. As a whole, we believe that water and sanitation problems should be a first priority concern, and that studies aimed at assessing occupational and disaster hazards in the district should be soon carried out.

6.2 Community awareness of PEC problems

At the very beginning of the focus group meetings the facilitator asked the participants to identify the main positive aspects and problems in their "environment" (meio ambiente, vizinhança). The data collected (see Tables 1, 4, 7) show that people recognized a variety of positive and negative aspects in their life conditions and did not operate any clear distinction between environmental problems purely related to physical-biological aspects of their neighborhood and environmental problems related to social issues and the availability of services. As mentioned before, this could be related
to the fact that the ICHM team was perceived as tied to the institutional authorities - i.e. the service providers - in the district. We believe, however, that the squatter communities involved in the study also showed that they perceive their physical and social environment as a whole. This is totally congruent with the PEC approach. We will now comment on a few other aspects that surfaced in the focus groups.

First, we found that in all communities there has been an excellent agreement of all separate groups (men, women and youth) on what was the first priority problem (see Tables 1, 4, 7); only the women in Cristo é Vida put only as second priority what the youth and men set as first priority). This increases our confidence that the data collected in the focus groups is reliable, and reflects generalizable community perceptions. In particular, it seems that a squatter community can be expected to agree on a particular priority problem. We have also noticed that the felt priorities may depend on the age of settlement. While no one of our case-study communities possesses legal land tenure, this is the number one problem only for the two younger ones, while the older community is primarily concerned about sanitation.

Secondly, the problems identified related more to immediate felt needs than to long-term issues. For instance, very few stressed that the general ecological situation was deteriorating (e.g. increasing pollution, drying up of natural springs, deforestation, erosion, too many people inhabiting the area) while the majority reported immediate concerns such as lack of connection with the water supply, lack of sewage facilities, lack of land tenure, inappropriate infrastructures and services. This is very understandable (when immediate concerns are at stake, future concerns may be a luxury), but may point at a need for specific education if sustainable development is to be achieved in the area.

Thirdly, people seemed to focus more on public than on private responsibilities. For instance, all the priority problems identified in Cristo é Vida after the discussion stimulated by various questions from the facilitator are "public responsibilities". And even when the problem priorities include "garbage collection" - to whose solution community organization and individual behavior can substantially contribute - the complaints stressed that the public company did not provide collection facilities close enough to the settlement. Even when public health facilities were actually sited in the proximity of the living area, the locals pointed at the lack of specific services (e.g. delivery rooms). This may reflect a "passive" attitude that could/should possibly be modified.

Fourthly, we noticed that many problems are strongly felt: they are re-iterated and expressed as life and death issues when asked why they are important (see in Tables 2, 5, 8 the "basic need" column); moreover a tight relationship among many problems is clearly recognized (see "condition to solve another problem" column in the same tables).
At times, however, some contradiction appeared, like in the case of Direito de Morar, where we found that the youth expressed "lack of drug users" as a positive aspect of the settlement, while men identified the "control of drug use" as a priority problem (Table 4).

Finally, we found that if problems are well known and understood, there is a definite lack of awareness about how the community can act in order to solve them. In fact, it proved difficult even to discuss about solutions (too often problems are perceived as nearly immutable facts of the life of the poor) and in particular about solutions that do not call for an external, deus-ex-machina intervention, but for the daily engagement of locals (Tables 3a, 3b, 6a, 6b, 9a, 9b). This may be due to the lack of common background of the squatter communities, as well as to a lack of historical instances of community activities that have managed to solve specific problems (Bordenave 1987).

6.3 Community motivations for PEC

As it can clearly be seen from Tables 2, 5, 8, there seem to be an ample spectrum of motivations underlying the desire to solve PEC problems. Interestingly, the ad-hoc classification we devised seems to apply equally well to the criteria expressed by men, women and youth, and to the criteria expressed by each community. Problems can be important per se and/or because they relate to other problems, it may be the appropriate moment to solve them and/or they should be solved because they cause diseases, economic losses, social problems or simply because they simply make life miserable and unpleasant to live (Annex 11). Motivations were expressed both in form of satisfiers and dissatisfiers (Scanlan and Keys 1979), but we grouped them under the same headings when related to the same general issue.

Since the above mentioned motivations were not collected in a systematic fashion (people expressed them in the focus groups following their own inclination to talk about a specific issue, no attempt was made to collect opinions - or the same number of answers - from all the participants; moreover, the sampling of individuals participating in the focus groups was not at all representative of the community population) a quantitative analysis of the answers is not warranted. We would like to notice, however, that a large numbers of motivations cluster around the issue of interconnectedness of problems and the desire to improve the quality of life. We believe that these two points should be kept in mind if some educational material will be prepared for use with the squatter communities. In such a case, it would probably be useful to know that people are well aware of relationships between problems (solving the one you solve the other) and they
may be more strongly motivated to act to improve their quality of life than - perhaps - to achieve an economic benefit.

Finally, it came as a surprise to us that squatters seem very interested to solve PEC problems - and in particular problems of concrete, physical nature such as the lack of sanitation or the lack of water supply - because of social motivations. For instance, a sewage system would allow to receive visits and organize parties even when it rains, a legal connection with the EMBASA water main would prevent feeling like second-class citizens and land tenure would allow the community to build its own identity. This information could also be useful to establish a dialogue with communities about common environmental concerns.

6.4 PEC and PHC activities so far

Tables 3a, 6a, 9a summarize the PEC activities identified by the three communities involved in the case studies. Apart from the initial invasion and building of shacks these activities comprise mostly petitions and vindications to authorities or illegal connections with water and electricity supplies. Often, the process goes from an unsuccessful petition to an illegal action. The actions have been most of the times organized with the support of local NGOs or local leaders, who seem more comfortable than community members in dealing with authorities. According to the community members who participated in the focus groups, no "support" has been provided by competent authorities, not even to the community of Baixa da Bica, which has obtained the desired legal connections with water and electricity supply. This kind of perception may warrant further examination.

Apart from the basic problems involved in carrying out illegal activities (e.g. conflicts with legal neighbors, open fights with the police), there have been problems in achieving the internal cohesion necessary to build a "community position". In fact, there may even be a vicious circle by which community cohesion is necessary to solve common problems, but these very problems (for instance lack of sanitation, overcrowding, limited water supply) create tensions and internal divisions that damage the chances of achieving unity and common trust. Lack of managerial capacities, lack of knowledge about "how to organize" and lack of specific technical skills have also slowed-down common activities, as well as limited economic means. In general, it appeared to us that the squatter communities possess very limited knowledge of their legal rights and responsibilities. In terms of land tenure, for instance, none was aware
of the fact that the Brazilian law assigns (at least in theory) land tenure rights to people after two years of residence on public land.

The establishment of a local commission (LC) to represent the community interests seems to have facilitated some of the actions mentioned above. Problems, however, are overwhelming. The LCs have been set up because someone external to the communities gave the idea and strongly supported the process, and this dependence of LCs from outside help is still highly perceivable. In our three case studies, people do not seem to be confident to be able to achieve results by themselves and wish to receive support from outside, from "someone who can guide and coordinate us", "a more powerful organization", "external people to stimulate participation, guide us and give trust to ourselves". In other words, community empowerment is far from being a reality, even among people with a history of difficult and relatively successful common actions, such as occupying and structuring a squatter settlement. In none of the communities we studied we found instances of internal economical organization to solve problems, for instance collection of funds to provide a salary to community members to solve a specific issue (paving a common pathway, cleaning up the site, planting trees to prevent erosion, etc.). (Only the community of Cristo é Vida reported to us that they collected money among themselves to buy a piece of equipment needed to establish the illegal connection with the public water supply.) In some cases common needs (for instance surveillance of children when parents are at work) is done by individual initiative, but little or no remuneration is provided, and thus no continuity is assured.

In terms of PHC, the health district of Pau da Lima has just began a number of important activities that are likely to affect profoundly the health services and the health situation in the district. If anything, however, we could underline that structural and managerial issues and the improvement of curative services have - quite necessarily - taken up much of the resources spent so far in the process. The "extramural" and "primary prevention" activities - including much that goes under the name of Primary Environmental Care - have been limited to a number of preliminatory studies, a project to train health volunteers in the bairro of Nova Brasilia and a project to support and coordinate the building of family septic tanks in the community of Jaguaribe II (bairro of Nova Brasilia). Possibly, it is now the moment to expand and improve these activities, which are clearly conceived in the plans for restructuring the district health system and which, as outlined in the section 6.1 above, will likely have important consequences in preventing disease and decreasing the costs of health services.

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16 See, however, the possible bias discussed in section 4.2 with regards to data collected during the focus group meetings.
6.5 **Integration of PHC and PEC**

Regardless of the potentially important or even essential contributions by other stakeholders, the "integration of PHC and PEC" must be based on a process of partnership and mutual support between the health district of Pau da Lima and local organized communities. The partnership is obviously of mutual benefit. On the one hand the communities can profit from the technical, economical and political support that the DSPL is able to offer. On the other, the work of the DSPL would be made easier, more effective and more efficient by the active participation of the communities they are supposed to serve. It is no new discovery that health, environmental and socio-economic objectives are best achieved in an integrated fashion.

In our study we examined the forms and conditions of this possible partnership. The results support us in concluding that it could involve a number of "functions", including:

* stimulus and support by DSPL to the setting-up - and self-managing - of formal organizations (Resident Associations) among communities of marginal residents in the district.

* collaboration between DSPL and Resident Associations in collecting information, elaborating community diagnoses and developing "micro-plans" to solve specific problems (including health outreach activities and local initiatives for environmental improvement and sustainable development).

* collaboration between DSPL and Resident Associations in implementing and evaluating projects concerning health and the local environment.

* support by Resident Associations to DSPL in disseminating health-related information and increasing participation in extramural activities.

* support by DSPL to Resident Associations in gaining access to appropriate technology, know-how and practices for projects of direct benefit to the local context (e.g. technical support and training of community members in managerial, administrative and technical capacities).

* support by DSPL to Resident Associations in mediating with competent authorities and gaining access, distributing equitably and acquiring tenure to the natural resources and the basic goods and services necessary to their livelihood (e.g. land, housing, water, sanitation, transportation, energy supply, child-care, schools, health-care, employment, welfare and insurance).
support by Resident Associations to DSPL and other municipal sectors in their process of administrative decentralization (political support, participation in activities, etc.).

6.6 Possible contributions by the local communities

Keeping in mind the possible forms of partnership in section 6.5, the results illustrated in Tables 3a, 3b, 6a, 6b, 9a, 9b have been examined for potential community resources and contributions. The data collected - again - show that communities do not feel particularly capable nor skilled. They agree they can put together a number of bodies for a public demonstration, do some simple manual labor or provide food to external workers. In only one community - Direito de Morar - a person mentioned that the community could plan and implement specific projects by itself. She even went on to say that the community could profit even from a simple form of support such as a loan to buy bricks, and that the loan could be repaid in a reasonably short amount of time. This opinion remains quite isolated in the context of the general lack of confidence of the others, who often wanted to be guided and helped by "someone external to the community, someone with more power, knowledge, experience, etc.". We can state, on the other hand, that the people we met were very ready to be trained in a number of skills, and in particular on the skills that would allow them to set up a successful community organization or to solve local environmental problems and initiate income-generating activities. It should be kept in mind that many marginal residents survive on highly time-consuming informal work activities, and thus time - even training time - is a resource that they must manage with great care.

The condition of illegality of the people in squatter communities requires, for common protection and survival, that the interests of individuals and families are connected and articulated together. This is common awareness among the people we met in the squatter communities. They believe, and we agree with them, that a formal organization such as a Resident Association would be a fundamental help in this process, especially if it could have a formal location, a president with leadership and managerial ability, a secretary that would take care of on-going activities, some visual point of reference in the community - such as a bulletin board to provide information and publicize events - and some point of reference and connection with larger organizations outside the community. These conditions have all been specifically mentioned in the focus groups. Such an association would be the natural reference point for the DSPL in organizing health education, outreach activities, etc. It would also possess a formal status that could be of help in the case the communities would like to give political support
to the process of decentralization of the health system or formalization of the Regiao Administrativa XIII.

Finally, we would like to notice that community participation and local interests to begin common activities can be best aroused by focusing on some concrete help to improve a highly felt problem. In this sense, the issue of land tenure seems to be the ideal candidate. Most importantly, it is a problem at the root of many others, including most of the PEC problems identified in the squatter communities. Secondly, there exist important legal information that people are hardly aware of and that they could put to good use (SFB 1988; BA 1989). Thirdly, such information could be better exploited as a group - and in particular as a Resident Association - than as single individuals.

6.7 Possible contributions by DSPL

The DSPL management - see the results collected in table 14 - is ready and willing to work with local communities. On the one hand, the participation of communities is essential for a meaningful diagnosis of the current health situation, for planning appropriate activities and for matching activities with a response from the interested individuals. On the other, fostering community participation is a particularly difficult and time-consuming task, complicated by a number of conditions. One of these is the lack of district-level administration in other sectors (the Regiao Administrativa XIII has not yet been implemented) that may re-direct towards the DSPL a number of expectations and demands that should be the competence and responsibility of other sectors. Another is the fact that the squatter communities - the most in need of the district - are poorly organized and when and if they come to the DSPL offices they come as individuals or loose groups. A local NGO (PROCAB) and community leaders from MODEMO have been very useful in filtering and mediating these contacts so far, but it would be appropriate to formalize and systematize them, since at the moment they depend on the goodwill and work of a few individuals and cannot assure a stable, structured service on which the communities can count in the future.

In its current first years of life, the DSPL is heavily burdened with the task of restructuring curative activities and the management of the district resources and personnel. It is not to be expected that it can dedicate a very large amount of time and finances to the support of Resident Associations, but it may be expected that it acts as a point of reference for a number of bodies and institutions interested in collaborating to better the life situation in poor communities in the district. In this sense and if appropriate support is provided, we can envisage that the DSPL could open a sort of "PEC
window" (Serviço de Apoio Ambiental para Comunidades) that could become such a focal point. This service - possibly staffed by three individuals with specific expertise on community health, urban environment and small-scale economics - could:

* stimulate the organization of communities in Resident Associations by publicizing advantages, providing specific information on how to organize and referring interested individuals to training initiatives in management and planning skills.
* organize Rapid Appraisal and Microplanning (Goethert and Hamdi 1988) workshops in as many communities as possible, as both a stimulus to set up Resident Associations and fostering their work, and a way to gather information to design better health outreach activities and disaster prevention activities.
* run training activities whenever the rapid appraisal and microplanning workshops indicate the need for specific skills among the members of squatter communities.
* establish a resource center by which specific needs of communities can be matched by resources available in the district (written material, technical tools, skilled individuals, professionals and organizations, research facilities, laboratories, credit facilities, etc.) and contacts between Resident Associations and competent sectoral authorities can be facilitated.
* plan and carry out information campaigns on PHC and PEC in the district;

The PEC window would be a useful focal point for communities as well as for the other institutions interested in health, environment and economic activities within the district. In fact, among the interviewed stakeholders many complained for the lack of coordination and communication among the institutional bodies that are willing and capable to act within the district. Some agree with the "PEC window" proposal, but do not agree that the DSPL could play the central role in setting it up, and proposed that FABS covers that role. We are concerned that FABS - although particularly suited to carry out training and coordination activities involving local communities - may be already overburdened and possess too limited resources to play a very active role in Pau da Lima. It is true that most examples of PEC activities in the developing world involve local NGOs and, in general, organizations more akin to FABS than to the DSPL. Yet, we believe that - given the growing extent and importance of local environmental and basic needs issues - governmental actors and not only NGOs should be called to play their role in fostering some of the most effective ways of solving the problems of the poor. This should be particularly true in Brazil, where the state prides itself of taking care of all the needs of the citizens.

The PEC window would be a substantial vehicle of publicity for the DSPL (many individuals in the focus groups did not have an idea of what the DSPL was) and its
activities. In particular, it would be soon understood that the DSPL - unlike other municipal institutions - has a peculiar interest in supporting the most marginal and vulnerable communities in the district. It could also be foreseen that - given the peculiar intersectoral nature of Primary Environmental Care, the DSPL may want to run the project only as long as the Região Administrativa XIII is not set in place, and then pass it on to the general managing coordination of the district.

6.8 Tools for action

During our study we found that Rapid Appraisal methods are very suited to realities that change fast and are excellent in stimulating concerns, opening up channels of internal communication and making people think. In fact, we believe that an important result of our study is to have tested the application of RA method in the context of marginal urban communities. Although not always encouraged by the initial response of people (late start of focus group meeting, scheduling problems, difficult communication about particular issues, etc.) we were soon convinced that the method provided a much needed occasion for community members to gather and talk about problems of common concern that are rarely discussed in a formal way. We found, moreover, that among the locals is strong the desire to talk about their own situation, to become credible to others, to make others understand the reasons why they are in many ways forced to be "second class", "illegal" citizens (see, for instance, the life histories). A common feeling among the squatters is that they are "abandoned" from the rest of society, that no one wants to hear about their problems, nor cares about them. In this light, it would be excellent for the DSPL's own image and credibility among the squatters to promote Rapid Appraisal exercises. It may also be a risky activity, since the expectations of communities can be raised substantially and in a wrong direction unless a very clear picture of the objectives and limitations of the exercise is given. If the objectives would comprise collecting information for community diagnosis and planning of appropriate services, discussing the possibility and ways to set up a Resident Association and introducing the "PEC window" service, we believe that the RA methods would be very appropriate. In particular we would like to recall that the information collected by RA seems to be reliable (in all the occasions in which we were able to obtain information from two or more sources we were comforted by a broad agreement).

If anything, simple RA techniques such as focus group meetings did not give excellent results in terms of identifying solutions to problems. What is needed is a forum where not only problems can be articulated, but also strategies to solve them can be
identified, options discussed, different needs mediated and specific projects, activities
and tools agreed upon. A set of techniques that go under the name of microplanning
(Goethert and Hamdi 1988) provide an example of how this second, more action oriented
phase of PEC work could proceed. The link between Rapid Appraisal and Microplanning
is quite strong, since the second puts an emphasis on where to start (a process emphasis)
than where to finish (a product emphasis) and is also concerned about rapidity of
analysis, local relevance of activities and partnership building between the many
individuals and institutions who have a stake in a project. Moreover, the process of
Microplanning is problem-driven, and encourages and promotes community leadership
and self-reliance.

6.9 Possible contributions by other district stakeholders

The results of structured interviews with stakeholders (see Tables 13a, 13b, 14)
allow us to conclude that the district is potentially served by a number of people and
institutions with specific expertise and willingness to help PEC activities in marginal
communities. There is practical expertise in community organization (PROCAB,
MODEMO; FABS), in health promotion (technical personnel of AISPO, Pastoral da
Saude), in legal issues (OAB) and in environmental issues (SEMADE, GAMBA and a
number of professionals and institutions with specific technical expertise). The peculiar
economic situation in Brazil (current freeze of all loans and credit aiming at stopping
the running inflation in the country) forbid us to explore the potential for credit services
for community-based activities in the district of Pau da Lima. Fortunately, not all
sources of credit have disappeared from the area, and the Italian health cooperation and
AISPO have expressed their willingness to continue supporting the DSPL. The Italian
cooperation is possibly particularly interested in pursuing the integration of PHC and
PEC activities, since the PEC strategy has been elaborated in Italy and promoted by Italy
in international contexts.

The contributions of the stakeholders mentioned above, as well as of many others
not included in our study, should be re-assessed in the initial phases of establishing a
"PEC window" service. To this end, a planning workshop could be called to appraise
-besides the general intent and capabilities identified in this study - the actual resources
that could be mobilized (written material, technical equipment, time, funds, specific
expertise, etc.). It would also be important to gather as much advice as possible from
experienced people in the district. The Rapid Appraisal and Microplanning methods to
be possibly applied in meetings with communities require some specific training.
one of the institutions we examined in our study declared to have experience on the subject, but possibly many would be interested in participating in a training session to be able to run such exercises. Together with a workshop for the PEC stakeholders, such a training session for facilitators of Rapid Appraisal and Microplanning exercises may be organized during a feasibility study for the "PEC window". The workshop participants may include individuals from DSPL and a variety of district institutions and - possibly - volunteers motivated to eventually assist DSPL in its work. AISPO could be the ideal institution to support and organize such a feasibility study. In fact, it could in particular examine its own "internal" feasibility of providing support to the DSPL in establishing and running the "PEC window".
7. RECOMMENDATIONS

Given the interpretation of the results in chapter 6, we would like to recommend the followings:

7.1 To the DSPL management

* To increase the amount of resources dedicated to extramural, preventive activities, in particular among "marginal" residents in the district. (This could initially focus on water and sanitation interventions, and include studies aimed at assessing occupational and disaster hazards in the district.)

* To fully implement the expected formalization of community interests in the management of the health district (Directive Councils, Community Council) and encourage the participation of representatives of Resident Associations.

* To open a "PEC window" service acting as a formal point of reference for the communities of the DSPL and other institutions interested in community-based health, environmental and economic activities in the district.

The service might provide:

- stimulus and assistance to local communities in establishing formal Resident Associations. (This may include a liaison between interested individuals and training opportunities in management skills and legal information, possibly provided with the technical support of FABS, AISPO, OAB);

- assistance to Resident Associations in collecting information, elaborating community diagnoses and developing micro-plans for Primary Environmental Care activities with the help of Rapid Appraisal and Microplanning methods;

- assistance to Resident Associations in implementing and evaluating those activities. (This may include acting as a liaison between specific needs and resources - including technical tools, skilled individuals, professionals and organizations, research facilities, reference literature, laboratories, training opportunities, credit facilities, etc.. Among the resource providers could be OAB, GAMBA, FABS, MODEMO, PROCAB, Pastoral da Saude, AISPO and the documentation service of the Coordination of Italian Health Cooperation in Brazil);
- mediation in contacts between district Resident Associations and district, regional and municipal authorities.

The "PEC window" service could also set up specific information campaigns (for instance on environmental health issues of particular relevance in the district). In such campaigns we would recommend to emphasize issues of particular concern to community members such as the interrelationship among PEC issues (solving one problem you also solve another) and the expected benefits in terms of quality of life and social harmony. Such campaigns could profit from the technical support of GAMBA, FABS, OAB, Pastoral da Saude, AISPO.

Finally, the service might have the following characteristics:
- an office room, easily accessible and with adequate facilities;
- a staff of three persons (suggested specific expertise in community health, urban environment and small-scale economics) trained in techniques of Rapid Appraisal and Microplanning and with excellent communication skills;

* To publicize the new "PEC window" service in the district by the vehicle of an information campaign on legal rights and responsibilities of squatters (see section 6.6).

* To make use - whenever needed - of audio-visual information means, such as popular theater and video-tapes, possibly associated with community discussion meetings.

7.2 To AISPO, project Pau da Lima

* To provide technical and financial support to the DSPL in carrying out a detailed feasibility study of the "PEC window" service, which may include:
  - a gathering of opinions and suggestions from experienced people in the district;
  - an analysis of the legal factors involved in setting-up formal Resident Associations;
  - a detailed appraisal of PEC resources available in the district;
  - a training of DSPL staff and other interested individuals on combined Rapid Appraisal and Microplanning methods;
  - a pilot application and evaluation of these methods in a number of squatter communities in the district.
Conditioned upon the results of the feasibility study:

* To provide technical support and financial support (if necessary) for a minimum of two years to a team of three full-time staff members in the DSPL to set-up, publicize and run the "PEC window".

* To provide technical support for the on-going monitoring and evaluation of the service.

* To assess - among local institutions and NGOs such as FABS and PROCAB - who possesses the best capacities to develop training courses for community members on specific organizational and PEC practices.

* To provide technical and financial support for a number of training courses run by the above-identified organization (technical support is meant to included monitoring and evaluation).

7.3 To the Coordination of Italian Health Cooperation in Brazil

* To stress the value of extramural, preventive, PEC activities in the work of Brazilian health districts assisted by the Italian Cooperation, and in particular in urban districts including large numbers of 'marginal' residents.

* To give political support to the "PEC window" service in the DSPL, and explore the feasibility of reproducing the experience in other Brazilian districts currently assisted by the Italian health cooperation.

* To include in its own documentation center thematic subjects such as:
  - theory and field experiences in PEC, with emphasis on Brazil and Latin America;
  - Rapid Appraisal and Microplanning methods;
  - legislation on environmental protection and land tenure, with emphasis on Brazil and Latin America;
  - PEC technology, with emphasis on low-cost housing, sanitation, latrines, water purification, source-water protection, rainwater collection and drainage, home
gardening, erosion control, soil consolidation, paving of pathways and garbage disposal.
- community-based disaster prevention and occupational health;
- community-based income generation activities.

* To promote the sharing of PEC experiences in Brazil and Latin America (this may include the organization of workshops and training courses, and the production and dissemination of audiovisual and literature materials).

7.4 To the case-study communities

* To set up or formalize their organization as a Resident Association, and clearly identify a president, a secretary/treasurer, a regular meeting place and means to communicate and publicize events, such as a bulletin board in the community.

* To build upon their own strengths and resources as a community by developing some autonomous actions to solve a common problem without external support.

* To establish closer contacts with the DSPL, increase the participation in DSPL-run activities and support the creation of a service that could respond to some of their needs in PEC.

* To support - wherever feasible, including via contacts with the political parties represented in the district - the administrative decentralization of the district of Pau da Lima (Regiao Administrativa XIII, budget capacities at the district level, etc.).
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10. PORTUGUESE GLOSSARY

BAIRRO. Qua-ter.
BAIXA DA BICA. The bottom with the spring.
BAIXADA. Bottom of the hill.
BARRACO. Shack.
CONJUNTO HABITACIONAL. Housing built by governmental projects to middle-class people.
CRISTO E' VIDA. Christ is life.
CUMEADA. Top of the hill.
DIREITO DE MORAR. Right to dwell.
ENCOSTA. Hill side.
GATO. Illegal connection of water or electricity supplies done by squatters.
INVASAO. Squatter settlement.
LOTEAMENTO. Housing built by governmental projects to low-income people.
MEIO AMBIENTE. Environment.
SENHORA. Lady.
SERVICO DE APOIO AMBIENTAL PARA COMUNIDADES. Primary environmental care "window service".
URUBUS. Local scavenger bird.
VIZINHANCA. Neighbourhood.
11. ABBREVIATIONS

VISPO. Italian NGO.
CEDS. Executive commission of the health district.
COELBA. Statal company of electricity supply.
DSPL. Health district of Pau da Lima.
EMBASA. Statal company of water supply and sanitation.
FABS. Federation of quarter associations of Salvador.
GAMBA. Environmental group of Bahia.
ICHM. International course for primary health care managers at district level in developing countries.
LC. Local commission.
LIMPURB. Municipal company of garbage disposal.
MODEMO. Movement pro-housing rights.
NGO. Non governmental organization.
OAB. Lawyers guild / commission of defence of environment.
PEC. Primary environmental care.
PHC. Primary health care.
PROCAB. Brazilian NGO.
RA. Rapid appraisal.
RMS. Metropolitan region of Salvador.
SEMADE. Secretary of environment and civil defence of the municipality of Salvador.
SILOS. Local health systems.
SO. Specific objective.
URBIS. Statal company of housing.
**Danos ecológicos aos rios**

da podem prejudicar Recôncavo
Salvador viveu domingo
de chuva e alagamentos

---

**A falta de água**

*um dos graves problemas enfrentado:

oradores de Jaguaripe II

A Embasa precisa explicar
por que isso ainda acontece.

Afinal, vai longe o dia em que
se anunciou que, finalmente, a
água de Pedra do Cavalo, reden-
cão do abastecimento da Grande
Salvador, estava chegando.

---

**Peixes morrem na Lagoa dos Frades**

*Falta de oxigênio causou
morte de peixes na lagoa*

---

**Greve de garis tira sustento**

dos badalmeiros de Canabrava

---

**Cidade em estado de calamidade**

*Meio ambiente em debate na Bahia*

---

**Greve acaba, mas lixo ainda**
demora para sair das ruas

---

**Novos Alagadós sofrem**
entre esgotos e lixo

---

**Mata Atlântica**

*Vai receber a
ajuda do BIRD*

---

**O abandono da Orla**

*Greve acaba, mas lixo ainda
demora para sair das ruas*

---

**Peixes morrem na Lagoa dos Frades**

---

**Aware de garis tira sustento**
dos badalmeiros de Canabrava

---

**A falta de água é um dos graves problemas enfrentados pelos moradores de Jaguaripe II**

---

**A falta de água**
e agrava-se a falta d'água em
vários pontos de Salvador e mu-
nicipios da Região Metropolitana.

---

**O lixo**

*impede barraqueiros da
Fazenda Grande de trabalhar*

---

**Peixes morrem na Lagoa dos Frades**

*Falta de oxigênio causou
morte de peixes na lagoa*

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**Mata Atlântica**

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ajuda do BIRD*

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**A falta de água**
e agrava-se a falta d'água em
vários pontos de Salvador e mu-
nicipios da Região Metropolitana.

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**O lixo**

*impede barraqueiros da
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nicipios da Região Metropolitana.

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**O lixo**

*impede barraqueiros da
Fazenda Grande de trabalhar*

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**Peixes morrem na Lagoa dos Frades**

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**Mata Atlântica**

*Vai receber a
ajuda do BIRD*

---

**O abandono da Orla**

*Greve acaba, mas lixo ainda
demora para sair das ruas*
PEC CHECKLIST


* ENERGY PROVISION (is there electricity in the area? are most people connected? are there jumps in intensity that may damage electric equipments? what is the fuel most commonly used for cooking and lighting at home? if wood, is it found in the nearby forest? is it at all getting scarce? is green wood cut for fuel? if charcoal or gasoil, is it expensive? is it easily found in the bairro? what kind of stoves are most commonly used? are they efficient?....)

* HOUSING (security of tenure? crowding? cooking facilities? food storage? adequate protection from rain, cold, hot, wind? what kind of construction materials? are houses ever flooded? are the foundations and walls solid? is there security for the family belongings? is there space to grow a family garden? is the house protected againsts rats, bugs, flies, etc.? is there room for privacy?....)

* LATRINES (for family or communal use? do they work? where do they discharge? do they need water to work? are they covered and protected from insects? do people use them? bad smells? is there a sanitation system for the area?....)

* GARBAGE DISPOSAL (is there a provision for garbage collection and removal from the area? is garbage burned or covered with soil? if not, does garbage bother the community? bad smells? does it attract rats, insects, or other animals? fire hazards? does it look bad around the houses? does it pollute the water of local streams? kinds of garbage (paper, plastic, glass, etc.)? could the community profit from some form of garbage recicling?....)
* "BUILT" ENVIRONMENT in the area (are houses crowded together? are the roads paved? is walking difficult because of steep pathways, muds? can impaired people move around easily? is there light at night? is there a provision for draining rainwater out of the pathways and streets? in the case of fire or other disaster could firefighters or an ambulance enter to help in the area?...)

* "NATURAL" ENVIRONMENT in the area (are there problems of erosion, lack of vegetable cover? is there a risk of landslides? is there a high risk of fire? are there dangerous animals around, such as snakes, rats, wild dogs? is there any forested area left? is the forest being burned to make room for houses?...)

* "WORK" ENVIRONMENT in the area (are there sources of air and water pollution from nearby industries and manufactures - even of small entity? are there safety provisions for the workers there? are there dumps and unsafe disposal facilities of waste, and in particular toxic waste? are there sources of excessive noise? is there any major traffic, with associated risks of accidents? are there home-based dangerous productive activities?...)

* "LIFE" ENVIRONMENT in the area (are there problems of delinquency? alcohol and drug abuse? is there domestic or street violence? opportunities of employment and education? destitution and poverty? are there places for communal events? recreation facilities? is there a community spirit in the bairro?....)

* SOCIAL SERVICES in the area (is there a creche for all the kids in need? schools? training centers? health center or health post? health workers? social centers? transport facilities? police? public telephone? fire fighters?.....)
Annex IV

OBSERVATION CHECKLIST

**Community:**

- Day of visit:  
- Starting time:  
- Ending time:  

**ICHM group accompanied by:**

- Number of houses entered:  

**Geographical characteristics:**

- **APPROX. SIZE OF THE INHABITED AREA:**

- **APPROX. NUMBER OF HOUSES:**

- **APPROX. NUMBER OF INHABITANTS:**

- **BORDERS** (other invasoes, conjuntos, etc.):

- **SLOPE:**

- **RIVER within the area?**

- **FOREST** bordering the area?

**GENERAL APPEARANCE:**

**Environmental problems:**


* ENERGY PROVISION (is there electricity in the area? are most people connected? are there jumps in intensity that may damage electric equipments? what is the fuel most commonly used for cooking and lighting at home? if wood, is it found in the nearby forest? is it at all getting scarce? is green wood cut for fuel? if charcoal or gasoil, is it expensive? is it easily found in the bairro? what kind of stoves are most commonly used? are they efficient?)

* HOUSING (security of tenure? crowding? cooking facilities? food storage? adequate protection from rain, cold, hot, wind? what kind of construction materials? are houses ever flooded? are the foundations and walls solid? is there security for the family belongings? is there space to grow a family garden? is the house protected againsts rats, bugs, flies, etc.? is there room for privacy?...)

* LATRINES (for family or communal use? do they work? where do they discharge? do they need water to work? are they covered and protected from insects? do people use them? bad smells? is there a sanitation system for the area?...)

* GARBAGE DISPOSAL (is there a provision for garbage collection and removal from the area? is garbage burned or covered with soil? if not, does garbage bother the community? bad smells? does it attract rats, insects, or other animals? fire hazards? does it look bad around the houses? does it pollute the water of local streams? kinds of garbage (paper, plastic, glass, etc.)? could the community profit from some form of garbage recicling?...)

* "BUILT" ENVIRONMENT in the area (are houses crowded together? are the roads paved? is walking difficult because of steep pathways, muds? can impaired people move around easily? is there light at nigth? is there a provision for draining rainwater out of the pathways and streets? in the case of fire or other disaster could firefighters or an ambulance enter to help in the area?...)

* "NATURAL" ENVIRONMENT in the area (are there problems of erosion, lack of vegetable cover? is there a risk of landslides? is there a high risk of fires? are there dangerous animals around, such as snakes, rats, wild dogs? is there any forested area left? is the forest being burned to make room for houses?..)

* "WORK" ENVIRONMENT in the area (are there sources of air and water pollution from nearby industries and manufactures - even of small entity? are there
safety provisions for the workers there? are there dumps and unsafe disposal facilities of waste, and in particular toxic waste? are there sources of excessive noise? is there any major traffic, with associated risks of accidents? are there home-based dangerous productive activities?...

* "LIFE" ENVIRONMENT in the area (are there problems of delinquency? alcohol and drug abuse? is there domestic or street violence? opportunities of employment and education? destitution and poverty? are there places for communal events? recreation facilities? is there a community spirit in the bairro?....)

* SOCIAL SERVICES in the area (is there a creche for all the kids in need? schools? training centers? health center or health post? health workers? social centers? transport facilities? police? public telephone? fire fighters?....)
Annex V

FOCUS GROUP AND RANKING EXERCISE - STEPS OF THE MEETING

1. Introduction, explanation of reasons for the meeting, confidentiality of information (information is not recorded with reference to a person but to the whole group), there will be a feedback meeting, refreshments available, "name game" (if appropriate).

2. How long have you lived in this area?

3. What do you like about your local environment?

4. What do you not like about your local environment? What problems are there?

THE FACILITATOR LISTS THE PROBLEMS ON A LARGE PAPER SHEET OR ON THE BOARD AND - IF NECESSARY - INTEGRATES THE LIST ASKING QUESTIONS ABOUT THE FOLLOWING:

======================================================================


* ENERGY PROVISION (is there electricity in the area? are most people connected? are there jumps in intensity that may damage electric equipments? what is the fuel most commonly used for cooking and lighting at home? if wood, is it found in the nearby forest? is it at all getting scarce? is green wood cut for fuel? if charcoal or gasoil, is it expensive? is it easily found in the area? what kind of stoves are most commonly used? are they efficient?.....)

* HOUSING (security of tenure? crowding? cooking facilities? food storage? adequate protection from rain, cold, hot, wind? are houses ever flooded? are the foundations and walls solid? is there security for the family belongings? is there space to
grow a family garden? is the house protected against rats, bugs, flies, etc.? is there room for privacy?...

* LATRINES (for family or communal use? do they work? where do they discharge? do they need water to work? are they covered and protected from insects? do people use them? bad smells? ...)

* GARBAGE DISPOSAL (is there a provision for garbage collection and removal from the area? is garbage burned or covered with soil? if not, does garbage bother the community? bad smells? does it attract rats, insects, or other animals? fire hazards? does it look bad around the houses? does it pollute the water of local streams? kinds of garbage? could the community profit from some form of garbage recycling?...)

* "BUILD" ENVIRONMENT in the area (are houses crowded together? are the roads paved? is walking difficult because of steep pathways, muds? can impaired people move around easily? is there light at night? is there a provision for draining rainwater out of the pathways and streets? in the case of fire or other disaster could firefighters or an ambulance enter to help in the area?...)

* "NATURAL" ENVIRONMENT in the area (are there problems of erosion, lack of vegetable cover? is there a risk of landslides? is there a high risk of fires? are there dangerous animals around, such as snakes, rats, wild dogs? is there any forested area left? is the forest being burned to make room for houses?..)

* "WORK" ENVIRONMENT in the area (are there sources of air and water pollution from nearby industries and manufactures - even of small entity? are there safety provisions for the workers there? are there dumps and unsafe disposal facilities of waste, and in particular toxic waste? are there sources of excessive noise? is there any major traffic, with associated risks of accidents? are there home-based dangerous productive activities?...)

* "LIFE" ENVIRONMENT in the area (are there problems of delinquency? alcohol and drug abuse? is there domestic or street violence? opportunities of employment and education? destitution and poverty? are there places for communal events? recreation facilities? is there a community spirit in the area?....)
* SOCIAL SERVICES in the area (is there a creche for all the kids in need? schools? training centers? health center or health post? health workers? social centers? transport facilities? public telephone? police? fire fighters?.....)

ONCE THE LIST IS COMPLETED, THE FACILITATOR SELECTS SEVERAL PAIRS OF PROBLEMS IN THE AREA INCLUDING THE MOST INTERESTING AND/OR IMPORTANT PROBLEMS IN THE LIST. FOR EACH PAIR THE FACILITATOR ASKS:

5. Between problem "a" and problem "b", which one is the most important to solve first for your area?

6. Why do you believe that problem "a" is more important?

IN THIS WAY THE PARTICIPANTS WILL EXPLICIT THEIR CRITERIA OF CHOICE. THE NOTE-TAKER WRITES THE REASONS OF CHOICE (CRITERIA) ON LARGE SHEETS OF PAPER ON THE WALLS, UNDER THE NAME OF THE PROBLEM.

AT THE END, THE FACILITATOR ASKS EVERYONE TO IDENTIFY THE 5 MOST IMPORTANT PROBLEMS THAT NEED TO BE SOLVED IN THE AREA AND TALLIES THE CORRESPONDING ITEM IN THE LIST EVERY TIME IT IS MENTIONED. TALLIES ARE COUNTED BY THE ADJUNCT NOTE-TAKERS TO OBTAIN THE LIST OF PRIORITY PROBLEMS ACCORDING TO THE PARTICULAR FOCUS GROUP.

7. Are you ORGANIZED in this area to solve one or more of the problems we have talked about?

IF THE GROUP IS PRESENTLY ORGANIZED CONTINUE FROM 8., IF NO ORGANIZED MOVE TO QUESTION 24.

8. Is your organization PRESENTLY ACTIVE to solve one or more of the problems we have talked about?
IF THE ORGANIZATION IS ACTIVE NOW CONTINUE FROM 9., IF IT WAS ACTIVE IN THE PAST MOVE TO QUESTION 16.

PRESENT ORGANIZATION - PRESENT ACTION

9. What has moved you to organize and take action?

10. Is someone external to your community helping you? If yes how?

11. What problems are you facing in your organization and in carrying out particular actions?

12. What kind of support do you miss that would be very useful to you in carrying out your action?

13. What results have you achieved?

14. Is there any follow-up of your work?

15. What modifications do you like to make in your organization to improve the action in solving the problems you have indicated as prioritary?

MANY THANKS FOR YOUR KIND HELP IN CARRYING OUT THIS RESEARCH.
WE WILL BE VERY PLEASED TO REPORT TO YOU THE PRELIMINARY RESULTS IN A MEETING THE NEXT ......................... We hope you will participate. Please feel free to serve yourselves with refreshments, and thank you again.

PRESENT ORGANIZATION - NO ACTION

16. What has moved you to organize and take action?
17. Did someone external to your community help you? If yes how?

18. What problems did you face in your action? What kind of support did you miss?

19. What results have you achieved?

20. Is there any follow-up of your work?

21. What are the main reasons that prevent you to take action in this area?

22. What would you need in order to start? (who should do what? what kinds of conditions could help? are there technical obstacles? lack of knowledge about something? economic problems? political problems? do you have enough time to meet and organize? is the community cohesive and peaceful, or are there internal disagreements and problems preventing a common organization?..)

23. What do you like to change in your organization in order to implement action to solve the problems you have indicated as prioritary?

MANY THANKS FOR YOUR KIND HELP IN CARRYING OUT THIS RESEARCH. WE WILL BE VERY PLEASED TO REPORT TO YOU THE PRELIMINARY RESULTS IN A MEETING THE NEXT ................. We hope you will participate. Please feel free to serve yourselves with refreshments, and thank you again.

24. What are the main reasons that prevent you from organizing and taking action in this area?
25. What would you need in order to start? (who should do what? what kinds of conditions could help? are there technical obstacles? lack of knowledge about something? economic problems? political problems? do you have enough time to meet and organize? is the community cohesive and peaceful, or are there internal disagreements and problems preventing a common organization?..)

26. What kind of organization could you set up to solve the problems you have indicated as prioritary?

MANY THANKS FOR YOUR KIND HELP IN CARRYING OUT THIS RESEARCH. WE WILL BE VERY PLEASED TO REPORT TO YOU THE PRELIMINARY RESULTS IN A MEETING THE NEXT ............... We hope you will participate. Please feel free to serve yourselves with refreshments, and thank you again.
FOCUS GROUP AND RANKING EXERCISE - AID FOR ADJUNCT NOTE-TAKERS

Community

Facilitator

Note-taker

Adjunct note-takers/assistants

Date .......... Starting time .......... Ending time ..........

Place of encounter ..........

Group composition (note number of people):

<table>
<thead>
<tr>
<th>men()</th>
<th>women()</th>
<th>youth()</th>
<th>TOTAL()</th>
</tr>
</thead>
</table>

Characteristics of participants:

<table>
<thead>
<tr>
<th>Age</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.....................................</td>
</tr>
<tr>
<td>2</td>
<td>.....................................</td>
</tr>
<tr>
<td>3</td>
<td>.....................................</td>
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<td>.....................................</td>
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<td>5</td>
<td>.....................................</td>
</tr>
<tr>
<td>6</td>
<td>.....................................</td>
</tr>
<tr>
<td>7</td>
<td>.....................................</td>
</tr>
</tbody>
</table>
Ranking of problems in the area:

<table>
<thead>
<tr>
<th>problem</th>
<th>tallies</th>
<th>prioritization</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Phrases and terms of particular interest and/or used often or at key-times during the meeting:

Note on group dynamics:
(Does everyone participate? are there dominant people? does everyone seem comfortable? interested? are there strong contrasts of opinions? do people tend to agree with the ones who have spoken first or to express different opinions? are there moments of relax, laughter? are there moments of particular tension? does the discussion start easily or with reluctance? does the group end pleasantly and with a sense of satisfaction? does anybody look tired? do people say they will return for the feed-back meeting?...).
STRUCTURED INTERVIEW FOR KEY-INFORMANTS

Community:
Date: Starting time: Ending time:
Key-informant:
Function:
Interviewer:
Assistants:

QUESTIONS/CHECKLIST:

Introduction of the interviewer and explainations of the reasons for the study.

1. How long have you lived in this area?

2. Where did you live before settling down here?

3. When was the squatter settlement set up and by whom?

4. How did it expand? Where there major invasions? When did they take place?
Where did the people come from? Where did they settle within the area of the bairro 
(please indicate in this MAP)? Is the bairro still expanding today (new invasions, growth 
of population)?

5. What are - in your opinion - the main problems in this area?

6. How is the situation about:

For each of the above, remember to ask and note:

*** the dates of the major events (building of roads, starting of public transportation, 
opening of the health center, etc.) (historical profile);
*** the places in the map where the problems are important (risk map);
*** the time of the year when the problems are particularly important (seasonal 
calendar).
*** how much the inhabitants of the area care about the issues


6.3 ENERGY PROVISION (is there electricity in the area? are most people connected? are there jumps in intensity that may damage electric equipments? what is the fuel most commonly used for cooking and lighting at home? if wood, is it found in the nearby forest? is it at all getting scarce? is green wood cut for fuel? if charcoal or gasoil, is it expensive? is it easily found in the area? what kind of stoves are most commonly used? are they efficient?.....)

6.4 HOUSING (security of tenure? crowding? cooking facilities? food storage? adequate protection from rain, cold, hot, wind? what kind of construction materials? are houses ever flooded? are the foundations and walls solid? is there security for the family belongings? is there space to grow a family garden? is the house protected against rats, bugs, flies, etc.? is there room for privacy?...)

6.5 LATRINES (for family or communal use? do they work? where do they discharge? do they need water to work? are they covered and protected from insects? do people use them? bad smells? ...)

6.6 GARBAGE DISPOSAL (is there a provision for garbage collection and removal from the area? is garbage burned or covered with soil? if not, does garbage bother the community? bad smells? does it attract rats, insects, or other animals? fire hazards? does it look bad around the houses? does it pollute the water of local streams? kinds of garbage (paper, plastic, glass, etc.)? could the community profit from some form of garbage recycling?...
6.7 "BUILT" ENVIRONMENT in the area (are houses crowded together? are the roads paved? is walking difficult because of steep pathways, muds? can impaired people move around easily? is there light at night? is there a provision for draining rainwater out of the pathways and streets? in the case of fire or other disaster could firefighters or an ambulance enter to help in the area?...)

6.8 "NATURAL" ENVIRONMENT in the area (are there problems of erosion, lack of vegetable cover? is there a risk of landslides? is there a high risk of fires? are there dangerous animals around, such as snakes, rats, wild dogs? is there any forested area left? is the forest being burned to make room for houses?..)

6.9 "WORK" ENVIRONMENT in the area (are there sources of air and water pollution from nearby industries and manufactures - even of small entity? are there safety provisions for the workers there? are there dumps and unsafe disposal facilities of waste, and in particular toxic waste? are there sources of excessive noise? is there any major traffic, with associated risks of accidents? are there home-based dangerous productive activities?...)

6.10 "LIFE" ENVIRONMENT in the area (are there problems of delinquency? alcohol and drug abuse? is there domestic or street violence? opportunities of employment and education? destitution and poverty? are there places for communal events? recreation facilities? is there a community spirit in the bairro?....)

6.11 SOCIAL SERVICES in the area (is there a creche for all the kids in need? schools? training centers? health center or health post? health workers? social centers? transport facilities? public telephone? police? fire fighters?.....)

7. Did they ever organize to do anything about these environmental problems? (If YES go to question 8; if NO go to question 11)

8. Do you have any specific example?

9. Who did provide some help, how and what kind of help?

10. Is the organization still alive and what does it do now?
11. What prevented them from organizing and taking action? (lack of knowledge, technology, money, time, training and know-how, ideas, organization, cohesion within the community, political power, freedom to act....)

12. Do you believe that the inhabitants of this bairro are interested in doing something to solve their environmental problems? What problem in particular? What could they do?

13. Do you believe that the DSPL could do something to solve the environmental problems in this bairro? If yes, what? (Here you should not accept "To provide money for this and that" as an answer, ask about SUPPORT DIFFERENT FROM GIVING MONEY)

14. If a very limited amount of financial resources could be available to solve these problems, what could be done first, and how could the community help to get the most out of it?

Appreciations for the time spent giving the interview and the quality of information provided. Invitation to take part in the feedback meeting that will take place in ... at.......

Annex VIII

STRUCTURED INTERVIEW FOR STAKEHOLDERS (PART ONE)

Stakeholder:
Function:
Date:
Interviewer:
Assistants:

QUESTIONS/CHECKLIST:

** Information on stakeholder

1.1 Brief history of the presence of the stakeholder in Salvador and/or Pau da Lima.

1.2 Interests and objectives within the district.

1.3 Past, present and future activities.

** Type of work carried out with communities

2.1 Did you ever meet together with local communities to discuss their basic needs and environmental problems?

2.2 Have you ever supported a community in taking care of its basic needs and protecting its local environment (e.g. acquiring access and securing tenure to land, housing, water, sanitation, energy, social services, fighting erosion, improving working conditions, abating pollution, etc.)?
(Support may include contributions in research, development of solutions together with the affected communities and other stakeholders, provision of funds, technical expertise, resources, political support, etc.)
2.3 Have you ever supported a community in gaining access to loan and credit facilities for its own projects?

2.4 Have you ever publicized information on your activities or on support available to community organizations within the district?

2.5 Did you ever train community members in specific capacities (management, technical skills, etc.) of direct application in the local context?

2.6 Did you ever support the creation and development of a community organization (including organizations of minorities, youth and elderly people, women)?

2.7 Did you ever support the process of administrative decentralization and the strengthening of community services in Pau da Lima (for instance did you support DSPL)?

** work partners

3.1 In Salvador or in the district of Pau da Lima, what institutions and community organization(s) did (do, will) cooperate with you?

3.2 In particular, did you (do you, will you) cooperate with any local environmental group or institution?

** respective roles of partners

4.1 In your work with communities what kind of support do you provide (financial, technical, research, political, training, etc.)?

4.2 What other kind of support would you be able to provide?

4.3 In what forms did (do, will) communities participate?

4.4 What did (do, will) they contribute?
4.5 What did other partners contribute?

** basic evaluation of work accomplished

5.1 What main results have you achieved working together with local communities in Salvador and/or Pau da Lima?

5.2 What specific problems have you encountered?

5.3 What lessons have you learned that could be useful for future activities?

** means of communications

6. According to your experience, what are the best means of communication with local communities (meetings, radio, pamphlets, community leaders, billboards, loudspeakers, etc.)?
Annex IX

STRUCTURED INTERVIEW FOR STAKEHOLDERS (PART TWO)

THIS SECOND PART OF THE INTERVIEW HAS THE MAIN OBJECTIVE OF EXPLORING THE FEASIBILITY OF A NUMBER OF RECOMMENDATIONS TO THE STAKEHOLDERS THEMSELVES.

The interviewer briefly reports about the preliminary results of the study, describes what is meant by PEC, and outlines a number of working hypotheses for the future.

1. Would you be willing or able to carry out the activities outlined in the preliminary working hypotheses we have mentioned?

2. If yes, how? If not, why?

3. Would you suggest any modification?

4. In your opinion, what are the most important actors and conditions to foster Primary Environmental Care in Salvador or in Pau da Lima?

5. What resources could be mobilized to this end?
CLASSIFICATION OF COMMUNITY INTERESTS IN PEC

* Criteria expressed as a "basic need" (re-enforcement of statement/ expression with other words/ life and death references, e.g."because it is impossible to live without it").
* Criteria related to the prevention of disease (explicit mention of prevention of disease and death, and maintenance of health, e.g."to prevent diseases").
* Criteria expressed as an interest to improve the quality of life (making life easier, more comfortable, more pleasant, e.g."to avoid the bad smell").
* Criteria expressed as a condition to solve another specific problem (linkage with other issues/ long-term view/ interrelationships, e.g."to prevent pollution of the river").
* Criteria related to an economic interest (explicit mention of financial benefit or economic benefit (goods) for self or the family, e.g."to prevent robberies").
* Criteria expressed as social interest (mention of interest involving relationships between self (and family) and neighbours (or community at large) /social status/ upgrading in the social consideration/ avoidance of dependency, e.g."to avoid conflicts with neighbours").
* Criteria related to opportunity/feasibility of the solution (referring not to the problem but to the particular conditions that may lead to solve it, e.g."it is a good moment to claim it now, before elections").
Acabou em tumulto generalizado uma passeata de invasores da área de Caiazeiras e Castelo Branco, que foram expulsos à força da sala do presidente da Urbis. Os ocupantes das diversas áreas organizaram uma comissão para conversar com o presidente Daniel Gomes e reivindicar a legalização das terras invadidas, "como havia prometido, quando da visita às áreas há cerca de dois meses", assegura o presidente do Movimento em Defesa da Moradia, Silvio Leal. Depois de denunciar os fins eleitoreiros para beneficiar a campanha do filho de Daniel Gomes, os representantes foram agraciados pelos seguranças da Urbis, que ameaçaram sacar de revólveres para conter e expulsar os manifestantes:

"O senhor prometeu um milheiro de blocos e os títulos das terras para quem votasse em seu filho", denunciou Sílvio Leal. Negando a veracidade da acusação, o presidente da Urbis encerrou a reunião e solicitou que os representantes dos invasores fossem retirados do recinto. "Eu não atendo esse pessoal que está trabalhando em campanhas políticas e vêm aqui se promover", rebateu Daniel Gomes. O segurança Carlos Roberto dos Santos explicou que tentou usar de delicadeza, "mas como eles alteraram, não tivemos outra alternativa senão usar da força", justificou.

São cerca de seis mil famílias ali representadas, solicitando a emissão dos títulos das terras. Daniel Gomes visitou as áreas e orientou os invasores a preencher um requerimento com nome do requerente e localização da terra para apreciação dos engenheiros da Urbis. As áreas que recebem parecer favorável por não terem qualquer projeto de construção no local seriam encaminhadas para legalização por parte do Governo do Estado.