



WORLD HEALTH ORGANIZATION  
ORGANISATION MONDIALE DE LA SANTE

11371

DISTR. : LIMITED  
DISTR. : LIMITEE

PEP/RUD/87.9  
ENGLISH ONLY

11028

INTERREGIONAL CONSULTATION ON  
"HOUSING - THE IMPLICATIONS FOR HEALTH"

*Held 5/87*

A CONTRIBUTION TO THE INTERNATIONAL YEAR OF  
SHELTER FOR THE HOMELESS (IYSH)

Geneva, 9-15 June 1987

RURAL AND URBAN DEVELOPMENT AND HOUSING

A SYNTHESIS OF SEVEN CASE STUDIES

OF HEALTH IN HOUSING

This document is not issued to the general public, and all rights are reserved by the World Health Organization (WHO). The document may not be reviewed, abstracted, quoted, reproduced or translated, in part or in whole, without the prior written permission of WHO. No part of this document may be stored in a retrieval system or transmitted in any form or by any means - electronic, mechanical or other without the prior written permission of WHO.

The views expressed in documents by named authors are solely the responsibility of those authors.

Ce document n'est pas destiné à être distribué au grand public et tous les droits y afférents sont réservés par l'Organisation mondiale de la Santé (OMS). Il ne peut être commenté, résumé, cité, reproduit ou traduit, partiellement ou en totalité, sans une autorisation préalable écrite de l'OMS. Aucune partie ne doit être chargée dans un système de recherche documentaire ou diffusée sous quelque forme ou par quelque moyen que ce soit - électronique, mécanique, ou autre - sans une autorisation préalable écrite de l'OMS.

Les opinions exprimées dans les documents par des auteurs cités nommément n'engagent que lesdits auteurs.

CONTENTS

Introduction

The seven case studies

- a) Access to life-saving services in  
Rio de Janeiro, Brazil
- b) Kebele 41 integrated urban development project,  
Addis Ababa, Ethiopia
- c) Health and housing in a Philippines slum:  
Tondo Foreshore, Manila
- d) Environmental health and housing in the Huaycan  
area of Lima, Peru
- e) Vyasarpadi slum improvement programme in  
Madras, India
- f) Community development in housing in Kwaso, Ghana
- g) The Krillapone housing and community development  
programme, Colombo, Sri Lanka

Activities

Community participation

Inter-sectoral coordination

Inputs and outputs

Conclusion

## Introduction

In preparation for the World Health Organization's Interregional Consultation on 'Housing - the implications for health' the Regional Offices of WHO were invited to submit case studies which demonstrated action on health in housing. The case studies will be used at the Consultation during discussions of feasible options for action on health and housing. They will also be used after the consultation in an action-oriented publication which focusses on what specific actions are needed by governments, external support agencies and WHO for health in housing.

This document presents a synthesis of the seven case studies received (from Rio de Janeiro, Addis Ababa, Manila, Lima, Madras, Kwaso (Ghana) and Colombo) and analyses common and disparate elements between the case studies. The wide ranging nature of the case studies reflects WHO's broad definition of 'housing' as the 'residential environment'. That is, the physical structure that people use for shelter and services and the environs of that structure including all necessary services, facilities, equipment and devices needed or desired for the physical and mental health and the social well-being of the family and the individual.

Case studies which have been documented in a standardized manner are particularly useful in that processes and problems can be highlighted more easily. The seven case studies here were presented using a standard structure which focussed on manpower, community participation, intersectoral linkages, costs, activities, organization, outputs and evaluation. Individual authors were encouraged to discuss particular problems encountered in the different programmes. Each case study is available as a WHO publication and a set of colour slides is available for many of them. The set thus forms a useful teaching aid.

## The seven case studies

The case studies range from very broad programmes to highly specific interventions. For example, the case studies from Addis Ababa and Madras are community development programmes in which improved housing is just one of a range of activities. Other case studies are much more specific focussing on, for example, chlorination of the water supply (Lima) and prevention of hillside collapses (Rio de Janeiro). Before proceeding to examine elements of the case studies such as community participation, manpower, intersectoral linkages etc, a brief description will be given of each of the seven case studies.

### a) Access to life-saving services in Rio de Janeiro, Brazil.

A quarter of Rio de Janeiro's 6 million people live in slums. Out of the 450 slums in Rio, 180 are located on precarious slopes and another 270 are in areas prone to flooding. Hillside collapses, building collapses and insanitary build up of garbage in these slums are the main threats to health which the Municipality tackles through the COSIDEC programme. Both relief and preventive work is performed by COSIDEC which uses some innovative technology eg. utilizing donkeys, microtractors or helicopters for transport, according to particular needs. This work is part of the Civil Defence System of the City and is under the auspices of the Town Hall. This arrangement appears to facilitate interaction between sectors but having city-wide responsibility makes community participation difficult and the relief activities of the programme appear to be more successful than the preventive/promotional activities.

### b) Kebele 41 integrated urban development project, Addis Ababa, Ethiopia

Again, focussing on the slums of the city, this programme is run by a non-governmental organization, Redd Barna (Norwegian Save the Children Fund). Kebele 41 is located in one of the poorest and most congested parts of Addis Ababa. In 1981, 788 houses were crammed into 6.7 hectares. Water supply and sanitation were particularly poor with a few poorly maintained communal facilities. The programme placed great emphasis on community

participation which was facilitated by the existing political structure. Addis is administered by elected committees in a system of urban dweller's associations (kebeles). Each kebele has about 5000 people and has women and youth associations. These associations were involved in the wide range of activities within the programme such as the building of communal latrines, upgrading existing latrines, installing standpipes, organizing garbage disposal, creating income-generating opportunities and setting up a health post. The future development of the programme is not certain as it has depended upon international NGO aid without receiving much support from the Municipality.

c) Health and housing in a Philippines slum: Tondo Foreshore, Manila

This case study documents the physical upgrading of a slum since 1973 when the government changed its programme from eradication of the slum area to development by the provision of essential services. At the start of the project 40% of households disposed of their excreta by wrapping it in discarded paper and throwing it into the nearest creek or river with their other garbage. Only 17% of the households had a piped water connection. The overall mortality rate in the area was almost twice that of the national average.

The initial concept was for the government and the communities to realign houses and to provide lanes and access roads, water and sewerage lines and health centres. Community volunteers were trained to maintain new facilities and loans were provided for housing improvements. Due to the initial success of the programme, the World Bank made large-scale funding available in 1976 which changed the nature of the programme.

d) Environmental health and housing in the Huaycan area of Lima, Peru

Huaycan is a rapidly growing shanty town which currently has about 18,000 inhabitants. Over half of the adult population earns below the minimum salary and water supply, excreta disposal and refuse collection are all inadequate. The physical organization of the area is quite sophisticated with each family having a plot of 90 square metres and 60 plots making up a 'Community Housing Unit' which has various community services. The main emphasis of this programme by the municipality (with cooperation from research institutions and PAHQ) is on training people how to improve sanitation using local materials. Other attempts to mobilize the community also focus upon the community housing unit, for example health volunteers. The chlorination of water is done at standpipes, in water trucks and in the homes of residents. Health promoters have the responsibility of monitoring this chlorination programme.

Some of the problems encountered by the programme were unequal stages of development within the area, lack of involvement by the health sector, and lack of baseline data upon which to base evaluations.

e) Vyasarpardi slum improvement programme in Madras, India

Part of the World Bank funded Madras Urban Development Project, the work in Vyasarpardi is very broad-ranging. The objectives of the programme range from land reclamation and security of tenure to employment for women and supplementary meals for children. It is not surprising that a similarly broad range of agencies are involved in the slum improvement programme (municipal authority, metropolitan area authority, state level departments, voluntary groups, church groups and income generating groups).

Shastri Nagar, which was the part of Vyasarpardi selected for detailed study was divided into a number of streets. Each street had an informal leader who had the responsibility of forwarding complaints to the Corporation regarding repairs to handpumps, public latrines, drainage of stagnant water, fly control and garbage collection. The programme brought together physical improvements carried out by the Tamil Nadu Slum Clearance Board and a health project run by the NGO 'Swallows in India'. Unfortunately, the Corporation of Madras finds it difficult to maintain the improvements to the physical features (eg. drained ponds are not filled) and it is difficult to promote preventive health action when people prefer to use private doctors for curative medicine.

f) Community development in housing in Kwaso, Ghana

Kwaso village has a population of about 3414 (1986) and is located just off the Accra to Kumasi road. The main activities of the programme involved installation of water pumps, communal latrines and drains. The village is well organized and is divided into sectors with headmen. Each sector devotes one day a week to communal work on the scheme and community participation at all stages is good.

The programme is not sustainable as there is a dependence on a large grant from the European Economic Commission for building materials. Also, centralized decision-making means that each local department must have its budget approved from Accra, the national capital, before funds can be committed. This has caused delays and hampers inter-sectoral coordination. However the physical improvements appears to have led to the eradication of some diseases and to a reduction in the incidence of others.

g) The Krillapone housing and community development programme, Colombo, Sri Lanka

About 50% of the families in the Krillapone shanty town have been able to enter this upgrading scheme which is part of the 'Million Houses Programme' of Sri Lanka. The National Housing Development Authority works with the American Save the Children Federation (SCF) in this instance and so far 161 new houses have been built by the Authority. SCF has built 29 houses for destitute families and 10 families have constructed houses by themselves. A community based project was started to make bricks and roofing materials on site. The poor state of the nearby canal and its misuse as a site for excreta and solid waste disposal continues to be a problem.

A community development council was organized as the link between the government, non-government agency and the shanty people.

Activities

Although the range of activities in each case study varies, the main objective of all of them is to improve environmental health. In some cases the health problems that are tackled are quite precise, for example, the Lima case study aims at reducing acute diarrhoea. Others aim at controlling a wide range of communicable diseases plus malnutrition and parasite infections.

Table 1 presents the range of activities within each of the seven case studies. Nearly all of them have a health education component to complement the physical improvements within the programme. If the health education component is weak it is often perceived as a threat to the efficiency of the entire programme, eg. Rio de Janeiro. In other cases the need for health education emerged after mistakes were made. For example in the Addis Ababa case study clean white bins were provided to households for refuse collection. The bins were immediately used for grain storage as the population did not appreciate the need for refuse disposal. This incident provided a reminder to the project staff to ensure that no programmes were introduced without health education, discussion and participatory management by the local community.

All the case studies except the two from Latin America have a water supply component. In Rio de Janeiro and Lima the water supply situation was not so severe and the Lima project goes beyond water quantity and focusses upon water quality. All the case studies except the specialized programme in Rio are tackling problems of excreta disposal. Most are providing a mix of private and communal latrines with several studies noting the difficulty of persuading children to use latrines.

Refuse disposal is a component of many of the case studies while drainage is tackled mainly in the places which have heavy rainy seasons. The broader physical upgrading programmes feature self-help improvements in housing.

Only the two programmes which have large financial inputs from the World Bank (Manally very coilla and Madras) attempt road improvements which are usually very costly.

The community development programmes (Addis Ababa and Madras) have elements that are not directly related to environmental improvements for example, income-generating activities and the development of health centres.

Table 1 The range of activities within the seven case studies

<u>ACTIVITY</u>	<u>CASE STUDY</u>						
	Rio de Janeiro	Addis Ababa	Manila	Lima	Madras	Kwaso	Colombo
Environmental education	*	*	*	*	*	*	-
Water supply	-	*	*	-	*	*	*
Water quality	-	-	-	*	-	-	-
Excreta disposal	-	*	*	*	*	*	*
Refuse disposal	*	*	-	-	*	*	-
Drainage	-	-	*	-	*	*	-
Housing	-	*	*	-	*	-	*
Road improvement	-	-	*	-	*	-	-
Income generating	-	*	-	-	*	-	-
Health centres	-	*	-	-	*	*	-

\* = present

#### Community participation

The degree of community participation was dependent upon the existing mechanisms for bringing the community together. Thus in Kwaso there was good participation because the village was already divided into sectors with designated headmen. Each sector worked on the project one day a week. This approach appeared to be very successful. In Addis Ababa the existence of various associations (for example women's groups and youth groups) within the political structure of the kebele (or neighbourhood) facilitated community organization and participation. In the Colombo case study there was mention of the Community Development Councils but no real explanation was given of how these linked community and government. In Lima the Community Housing Units became very involved in the programme. Here, the community participates fully in planning and building latrines and manufacturing the parts needed for them.

Community participation was less successful in Rio de Janeiro, Manila and Madras. In Rio de Janeiro there are attempts to strengthen community involvement by education in the schools. In Manila the political climate was a constraint to participation and in Madras the programme ignored the community's expressed needs and made only token gestures towards involvement by 'persuading' communities to accept the proposed interventions. It is notable that in this programme one of the main problems is the lack of maintenance of facilities by the community. Facilities are seen to belong to the government and not the people.

#### Intersectoral coordination

Problems which hindered inter-sectoral coordination were quite specific to each case study. In Rio de Janeiro there were few problems because the programme was implemented by the municipality which acted as a forum to co-ordinate the actions of different sectors. In Addis Ababa the programme was under the control of a single non-governmental organization (NGO) which took an inter-sectoral perspective. In Manila there was little social development to accompany the physical development. A similar problem was faced in Madras where the government was responsible for physical upgrading and an NGO was responsible for health education and care. There was little interaction between the two components and this formed a major constraint within the programme.

In contrast, the coordination between the government and NGOs involved in the Colombo case study was good. In the case study from Peru there was good technical assistance from an academic institute and PAHO. However, the health sector failed to become involved in the sanitation programme.

In Kwaso it was felt that the centralized nature of government made inter-sectoral coordination at the district level particularly difficult to achieve. In this rural setting there was no equivalent of a municipality to facilitate inter-sectoral action.

#### Inputs and outputs

As so often is the case, the cost information for many of the case studies was poor or non-existent. Clearly the scale of the initiatives varies, for example from a US\$ 60 million investment in Manila to a US\$ 200,000 programme in Addis Ababa. No comprehensive figures were available from Colombo, Rio de Janeiro, Lima or Kwaso. Good detailed figures were available from Madras where the physical upgrading of the slum cost US\$ 150 per family.

Table 2 shows the manpower for each programme.

Table 2 Manpower involved in the case studies

		Rio de Janeiro	Addis Ababa	Manila	Lima	Madras	Kwaso	Colombo
<u>No of people</u>	full time	10	13	-	7	25	11	16
	part time		-	-	3	-	-	-
	community workers		-	2400	26	22	-	-

It is difficult to assess the outputs of the respective case studies because few of them performed evaluations and there is a lack of empirical data. Impressionistic data suggests that all the programmes have been successful in achieving at least some of their objectives. However, only the Madras programme conducted a baseline study of conditions before interventions began. This will form a useful yardstick against which to measure performance in a few years time.

Each author was invited to evaluate their case study. They were asked whether they regarded the case study as a good example of community involvement, intersectoral coordination, sustainability (ability to be maintained over time), transferability (applicable in other countries/cultures), cost-effectiveness and appropriate technology. The results of this evaluation are presented in Table 3. Clearly some authors were more critical than others but the noted weak points of the cases reflect the discussions above.

Table 3 Evaluation (by the authors of the case studies)

<u>GOOD</u> <u>EXAMPLE OF</u>	<u>CASE STUDY</u>						
	Rio de Janeiro	Addis Ababa	Manila	Lima	Madras	Kwaso	Colombo
Community involvement	No	Yes	Yes	Yes	No	Yes	Yes
Intersectoral coordination	Yes	Yes	Yes	Yes	Yes	No	No
Sustainability	Yes	No	Yes	Yes	Yes	No	Yes
Transferability	No	Yes	Yes	Yes	Yes	Yes	Yes
Cost-effectiveness	No	No	Yes	Yes	Yes	Yes	Yes
Appropriate Technology	Yes	Yes	Yes	Yes	No	No	Yes

### Conclusion

The "highlights" from the case studies may be summarized as follows:

Rio de Janeiro: an attempt at true inter-sectoral co-ordination under the umbrella of a municipality. The programme recognised the need to use a variety of innovative technologies to respond to disasters.

Addis Ababa: a holistic approach to health with improved housing and environmental conditions regarded as crucial elements of community development. The integrated nature of the programme makes it difficult to evaluate single activities and there is a dependence on foreign aid.

Manila: an example of how a programme can change when it becomes well-known and attracts large-scale funding. Political constraints meant that community participation was not possible and the upgraded houses were more suitable for middle income groups than the poor.

Lima: a programme which makes full use of existing community structures to implement a highly focussed programme (improving water quality).

Madras: an integrated programme of social and physical development which experienced problems due to the split of responsibilities between government and non-government institutions and the subsequent lack of coordination.

Kwaso: a programme which fully mobilized the community but suffered from centralized decision-making and a dependency on aid.

Colombo: good relationships between government and non-government organizations enabled a successful physical upgrading programme.

Essentially, the case studies can be divided into those which had a single intervention, those which involved comprehensive physical upgrading and those which added a social development component to such physical upgrading (see Figure 1). As one moves towards integrated physical upgrading and social development there is a need and opportunity for a greater degree of inter-sectoral coordination and community participation. However, there are often many constraints to these processes as the present case studies demonstrate.

Figure 1:

<u>Single intervention</u>	<u>Comprehensive physical upgrading</u>	<u>Physical upgrading social development</u>
Example: Rio (prevention of hillside collapse)	Manila	Addis Ababa
Lima (improve water quality)	Colombo Kwaso	Madras

INTER-SECTORAL COORDINATION



COMMUNITY PARTICIPATION



===