

UPGRADING TEKELHAIMANOT, ADDIS ABABA — AN URBAN DEVELOPMENT ALTERNATIVE FOR LOW-GRADE AREAS

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HOUSING — THE PAST 20 YEARS

In the last 20 years the population of most primary cities of the developing world more than doubled and in some cases trebled. Similarly the population of Addis Ababa increased 3.2 times during this period. This development of Addis Ababa as a "primate city" is within one generation (see Figs. 1 and 2).

In the process of this urbanization we can focus on one outstanding fact: during the last twenty years the majority of settlers in Addis Ababa have found a housing solution that is non-conforming with the laws of the city. One indicator of this fact is the growth of "illegal" forms of settlement. The rate of increase of the squatter and slum population is astronomical.

To give solutions to the above stated problem a few variety of housing projects have been tried out. Public authorities have been making a gradual series of adaptations towards the real circumstances of urban growth that confronts them. This adaptation is towards a recognition of the strength of the non-conforming housing resources and actions of the growing low-income population, in settling and housing themselves in the city. This recognition has been a major factor in modifying public housing programmes during these years. If we look at some important stages of evolution of public housing programs for low-income groups over the past twenty years, we can clearly see how official ideas on these aspects have been changing.

Stage One: Low-cost Housing

To clearly see the official views of urban housing supply that were prominent, we can best start by looking at the pilot low-cost housing project of Kofe, Addis Ababa [2], and the proposed plan of housing in

Makalle [3]. It was a general understanding that the urban housing demand of low income groups could be largely met by mass public housing programmes; and that public management and control of this part of housing supply would ensure adequate housing standards and facilitate orderly urban development. There are two particular features of these "prebuilt low-cost housing" approach to urban settlement.

Firstly, the various components or urban settlements are delivered to the household in a single fixed and finite package (the dwelling unit). The dwelling unit itself, and its planned relationship to other units in the scheme dictates the way in which all other settlement components are supplied to the household. Variation of any kind mean increased costs.

Secondly, authorities supplying this types of housing claim complete control over the settlement process of their clients. It is the authorities who decide what forms and what costs of dwelling are suitable. It is they who determine how fast households will repay the cost of dwelling. Decisions are taken by combining the various components of urban settlements into a fixed dwelling "package" and by controlling the supply and use of the package.

Stage Two: Aided Self-help Housing

Despite the use of low-cost adjective, prebuilt public housing was failing to provide accommodation at the very low-cost levels that poor households could afford to support and repay. It was becoming apparent that "public housing" solution of low income groups would impose a burden on public capital resources that government could not support.

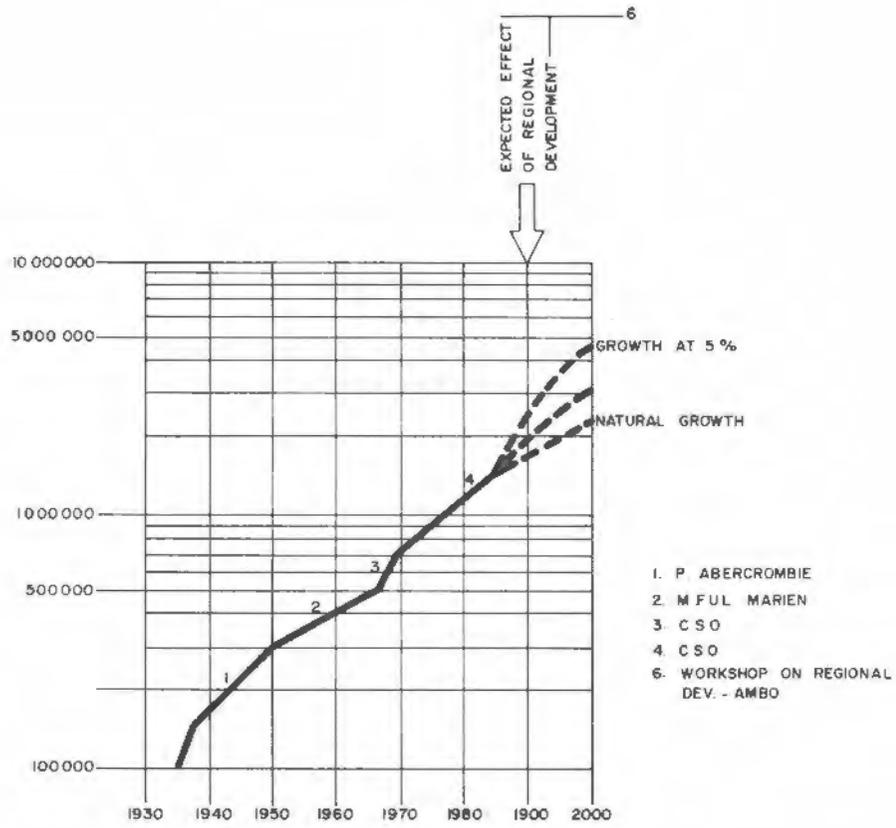


Fig. 1 Population Growth of Addis Ababa

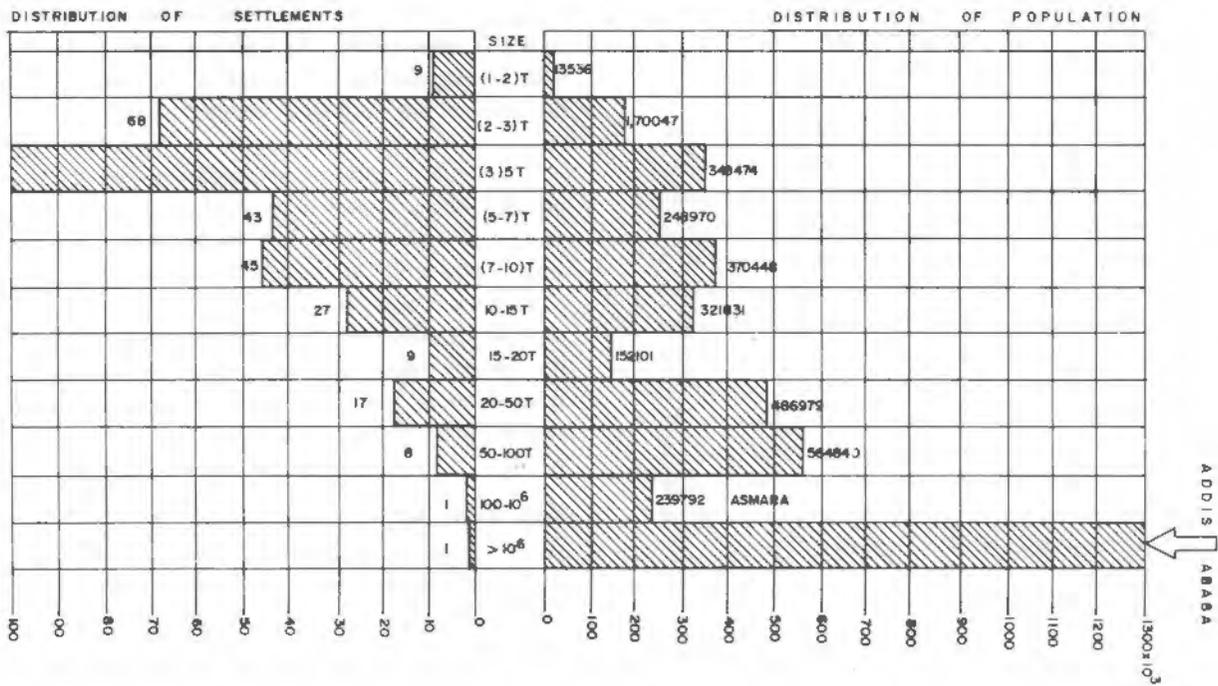


Fig. 2 Addis Ababa as a "Primate City"

If low-cost housing was to be an effective tool for maintaining decent urban housing standards, it had to be cheap enough for a large part of the growing urban population. But the housing standard in Kolfe housing scheme was achieved through subsidies. When housing subsidies is involved then less of the capital cost of this housing could be recovered and channeled back to build more houses. It seems very necessary, therefore to find ways of reducing the cost of public housing without having to increase housing subsidies. Aided self-help housing was one of the cost cutting device. The idea was that cost in public housing could be reduced by engaging the household clients themselves as unpaid building labour. This will cut the cost of contractor's profit, and was successfully tried at Kolfe (see Fig.3).

Aided self-help housing can be seen as an effort on the part of authorities to reduce cost, while retaining all decision-making under their control. However, there is one difference from the "prebuilt package" since the supply of some of the components, by the clients begin to appear.

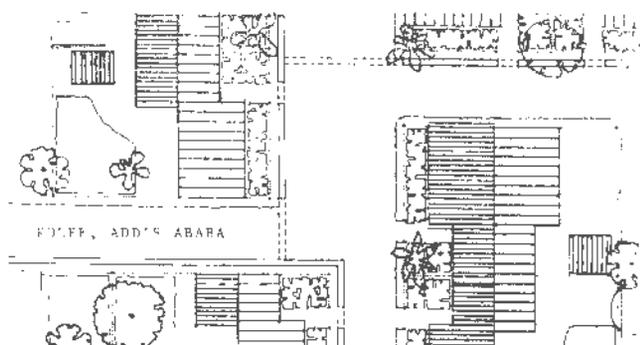


Fig. 3 Self-Help Housing at Kolfe

Stage Three: Upgrading, Site and Service

In 1978, The Ministry of Urban Development and Housing has sensed the realities that these "illegal" and usually controlled settlements involved increasingly large inputs of money, efforts and enterprise by the urban poor; and these crucial resources for urban growth were still very largely being ignored and even rejected previously.

ation by the Ministry that a very substantial part of the low income population can and do house themselves without direct housing assistance by the government. It is so strange that this simple fact has been so difficult

to see, and so hard to accept. Associated with this fact came the realization that these actions should have a satisfactory output in a secure urban setting of Socialist Ethiopia.

This article on the upgrading of Teklehaimanot area is a case study by the Government and Addis Ababa University on the improvement of environmental conditions of slum areas. The policy on land and the structure of urban dwellers association is highly advantageous for the success of this project. It is basic for a new urban order involving a working partnership between households, and their city authorities.

The trends traced above manifest an increasingly observant adaptation or public policies towards the facts of urban growth and towards the realities of housing needs and resources.

In 1978 The Provisional Military Government of Socialist Ethiopia, Ministry of Urban Development and Housing came up with a plan of site and service and upgrading [4].

Starting April 1983, this project is under realization. The idea is to enable householders to exercise control for themselves over wide variety of housing options, by combining various settlement components at different stages of their own settlement and housing process.

The Idea of an Upgrading Plan

"The objective of human settlements policies of each nation should be to secure a minimum standard of living – goods, facilities and services for all peoples and to restrain excessive consumption by privileged groups until these minimum standards are attained for all people" [5].

This report describes an upgrading plan for intermediate development of one of the Low Grade areas in Addis Ababa. The plan consists of a set of development goals and policies and action programs needed to achieve

The plan described here as an upgrading plan is one of a number of alternative plans considered. The number of alternatives has been narrowed on the basis of technical testing, evaluation and comments derived from numerous meetings involving officials of the Ministry of Urban Development and Housing, the Municipality of Addis Ababa and students of the Addis Ababa University.

Low-Grade Development Area

The Teklehaimanot area can be taken as a typical case of low-grade area. The area is unplanned and much uncontrolled building take place. Building standards are low and the provision of urban services is inadequate (see Fig. 4).



Fig. 4 Inadequate Urban Services

The "upgrading area" of Teklehaimanot occupies 100 hectares and about 8000 families. Densities reach 670 persons per hectare. Among the 8000 families 60% are below poverty level in which an average family can just afford a calorie - adequate diet (135 birr per month for a household of 5.3, 1978 survey) (Table 1). Over 90% of houses are built in "Chika" and corrugated iron roof with no maintenance.

Table 1: Teklehaimanot Area

	Monthly Income (Birr - Sept. 1980)	Cumulative % House-holds
	0-10	
	11-30	15
	31-38	20
Urban	38-54	30
	55-74	40
	75-96	50
	97-130	60
Poverty	131-170	70
threshold	171-225	80
	265-552	90
	552 and above	100

As a result of its historic development urban services is inexistence with sanitation being the most critical problem. Majority of households have no toilet facilities and use any open space available. This poor environmental conditions is worsened by the inadequate refuse collection, which is due to the problem of access for collecting vehicles.

Poor living conditions affect the health of the inhabitants of the area. The incidence of gastrointestinal infections, pulmonary infections and skin diseases is high compared to that in the high-grade development area.

The most critical problem of urbanization had resulted in the creation of low grade areas which are deprived of basic human needs and a conducive urban environment to human development. Nowhere in Ethiopia is the problem of urbanization more acute than in Addis Ababa where 79% of the population live in congested low-grade settlements of one story buildings under conditions unfit for human habitation. The 1977 population of Addis Ababa, according to C.S.O. is 1,099,851 persons living in 253,840 households with an average of 4.5 persons per household.

One typical characteristic of all low-grade areas is high density, lack of public facilities and services. Our analysis shows that a minimum of 73,500 housing units would be required by 1974 to solve the problem of overcrowding in low-grade areas throughout the city.

The basic infrastructure and services are in more critical conditions. About 50,505 (24%) of all residential houses have no toilets, and 27,551 of these have no water supply. Other 65,640 (30%) of all houses in Addis Ababa have no water supply or access to common pipe [6].

If "slum clearance" approach is adopted it would mean an enormous investment in financial subsidies. Apart from the incapability of the construction industry the resources for such a programme are not available.

How can we, then solve the problem of Low Grade areas? How can we create a more orderly and habitable environment, and meet the basic needs of the majority of people who are living in deprived areas?

How can we make the wisest use of our natural and man made resources? These are the questions to which will alleviate the poor conditions of the environment of deprived areas. This realistic approach is what is referred to here as upgrading. The idea of upgrading seems to imply a recognition of defeat, but it is in fact the tempering of our ideals by a practical recognition of what is possible. It is not so much a question of lowering housing standards, but it is the raising of the current downgraded environmental standards in terms of sanitation, public services and community facilities.

Investment in the creation of parks, of schools, of small scale industries, of sanitation, of community centres, will go much farther and affect more individuals on a broader scale than a comparable investment on housing. By concentrating on the environment itself, we may be able to come a little closer to helping our people get prepared for a better world.

GOALS FOR CHANGE

"Any change (physical, economic and social) in a society is incremental and cumulative. Just as the creation of built environment is a long-term process, realization of standards should also be viewed as a long-term process. The decision to which group of standards to adopt in a given situation is a matter of social choice – that is a question of priorities in achieving objectives and finding the right balance between expenditures of different kinds. Thus, three questions, what standards? At what cost? And what benefit? Would have to be examined cyclically until the best solution is obtained in terms of the chosen set of standards and available resources." [7]

The introduction of this report described that a good urban life in low-grade areas can only be achieved by creating a tolerable public environment. This chapter provides a statement of goals which describes what the plan aims at and hopes to achieve. It is the objective of this plan to promote these goals so that an improved environment for living will be achieved. These goals are: building of a Healthful Environment and making an Optimum use of Existing Resources.

Healthful Environment

An urban environment affects the productivity and happiness of a society in countless ways. The social organization, the existing quality of housing and its surroundings, the availability of jobs and places where it can recreate, the ease with which one can travel from one place to another to satisfy ones professional and recreational interests – all are measures of the quality of environment.

The upgrading plan seeks to promote these ends through the following:

1. Establishment of a social structure that is most appropriate for the achievement of this plan. The social structure of Addis Ababa is based on "The Kebele", (Urban Dwellers Association) as its basic unit. It is a good tool to organize the city as a whole. However, the scale of these social units do not promote an effective interaction among the inhabitants. It is, therefore, necessary to establish smaller social units which can create more neighbourliness between individual families, and can also create a better social output. This can be achieved through cooperatives.

2. An orderly development providing a balanced land-use pattern which satisfies the basic needs of the community. Communities should be provided with the basic infrastructure and community facilities.
3. Development of small scale industries, by upgrading the existing ones and by establishing new cottage industries.

Optimum Use of Existing Resources

The strategy adopted by the plan is change through transformation and not new formation. Specifically, change through transformation would involve:

Preservation of existing housing stock wherever possible so that new housing results in maximum net gain. The idea of upgrading can be reinforced by concentrating on existing and future clearance projects in upgrading areas where the effect will be most beneficial.

PROPOSED DEVELOPMENT – WIDER SETTLEMENT

Three alternative plans were proposed for the wider settlement of Teklehaimanot planning area. Among these, Alternative 2 is accepted by the Ministry of Urban Development and Housing.

All the proposed alternatives seek the same goals. However, there are shifts on emphasis from one plan to the other. While one plan stresses the allocating of services to each of the assumed future cooperatives, Alternative 2 stresses the optimum proximity of these services to residential areas, and thus, a smaller number of service points.

All the proposed alternatives have, to a great extent, used the existing physical and social infrastructure to reorganize the upgrade and upgrade the whole area. The one difference is that the rejected plans are more expensive since some roads are planned to cross through difficult terrains and involve construction of bridges. Another difference of these rejected plans is that they demolish some existing residential houses in order to build the future infrastructures.

Alternative 2 – Planning Problems and Proposals

In any settlement the essential elements are a set of localized activities such as work, play, learning, shopping and residing. The interaction between them includes the flow of people, material, information, and the extent to

which an activity benefits or hinders another. Other essential components are space and time in which these activities occur and the path along which the flows take place. Planning problems, then, include the location of spaces, structuring, integrating the locating paths within them.

The majority of land use in Teklehaimanot area is purely residential with an average density of 450 people per hectare.



Fig. 5 Drainage Problems

Detail Upgrading

The first phase of upgrading the environment of Teklehaimanot area will be improvement of roads, storm drainage (Fig. 5) and pit latrines for about 8000 households occupying 100 hectares. Major roads which are badly deteriorated (see Fig. 3) roughly stoned or un-surfaced will be resurfaced, using existing stone wherever possible. Existing secondary roads will be left un-surfaced but will be given an appropriate base. The number of water taps will be increased to bring the servicing level from the present 600 house-holders per standpipe (2 taps) to about 100. Loans for pit latrines will be at about one per four families.

The second phase of upgrading will include water connection for some individual houses built or rebuilt during the intervening period and security lighting.

The basic components of public facilities and utilities are inadequate, and inefficient. As a result of the above objective conditions the internal balance of the Teklehaimanot area is lost. Residents must travel unnecessary distance from home to work (see Fig. 5).

The general recommendation made by Alternative 2 in solving the above problems is based on initially selecting a minimum cost solution subject to specified levels of benefits, constraints, utilities and industries

are upgraded before considering to establish new ones.

Based on the community needs, educational, recreational and commercial areas are proposed. The standards (size and proximity) are not based on the critical sizes of population, which is necessary to satisfy the optimum economies of scale. This is due to the scarcity of open spaces and the high density. However, the proposed grouping and connections of this groupings, will provide the additional parameters necessary for obtaining better features of an urban environment.

REFERENCES

1. United Nations. Growth of the World's Urban and Rural Population; 1929-2000, New York, 1969.
2. E. Nobis. Pilot low-cost Housing Project in Kolfe, Addis Ababa, Ethiopia, University of Lund, 1970.
3. Per Carlsson, Bo Martensson, Rolf Sandstrom and Mats Aestedt. Housing in Makalle, Ethiopia, National Swedish Building Research, Stockholm, 1971.
4. Yohannes Hailu. Upgrading the Teklehaimanot Addis Ababa, Department of Architectural and Town Planning, Faculty of Technology, Addis Ababa University, 1978.
5. United Nations Publications. Habitat, Human Settlements Performance Standards, United Nations N.Y., 1972.
6. United Nations. *ibid.*
7. Central Statistics Office, Addis Ababa. Manpower and Housing Sample Survey Dec. 1976, CSO, 1977.
8. World Bank. Urban Projects Department, Staff Appraisal Report No. 2331-ET, 1979.