

INTEGRATED URBAN HOUSING DEVELOPMENT

ASSESSMENT OF THE MATHARE 4A DEVELOPMENT
PROGRAMME AGAINST THE SUSTAINABLE LIVELIHOODS
APPROACH
WORKING PAPER 4
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November 2002

This document is an output from the project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of the DFID.

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EXECUTIVE SUMMARY

The growing challenge of poverty in Kenya's urban areas has been a major focus in the development agenda by the government, private sector, civil society and other organizations for the last decade. This is due to the widespread poverty, which affects over 15million people in the country according to the National Poverty Reduction Strategy Paper (PRSP)¹. The National Poverty Eradication Strategy places a lot of emphasis on initiatives supporting improvements on socio-economic, political and legal environments.

The urban poor need equitable access to public services and productive resources in order to improve their welfare, clothe, feed and provide adequate shelter for themselves. This will enable the poor take advantage of productive employment opportunities and have access to education, basic health, safe sanitation and safe drinking water.

This paper outlines the status of urbanization in Kenya, the shortage of shelter and the strategies taken to meet the high demand for housing the poor while at the same time addressing their livelihoods within the same context. The study focused on the German-funded Mathare 4A Development Programme. The programme's impact on sustainable urban livelihoods are discussed within the following context:

- Provision of infrastructures – (footpaths, sewerage, water, street-lighting, garbage collection points, wet cores, and small business kiosks).
- Compensation for structure owners and security of tenure
- Management of the project by a Trust (Amani Housing Trust)

An overview of the Mathare 4A Development Programme including the objectives, development concept and the implementation process is also contained. The majority of the population is employed in the informal sector and do not have regular incomes. This increases vulnerability and risks but the programme's inputs have somehow reduced some of the stress producing aspects to the residents.

The paper also examines the concept of livelihoods and its relevance against the objectives of the programme. It also examines the priorities of the people and the institutional set up of the project, its implementation process, the partners and the monitoring of the progress. The notable aspect is the diverse techniques adopted by the urban poor to accommodate, cope or evade threats, shocks and stress through exploiting opportunities. The best example is women's superior positions in the existing social groups relative to their male counterparts.

The vulnerability of beneficiaries is also examined, prior to and during the programme's interventions. In addition, project impacts on the assets portfolio, and on the tenants and business communities are considered. The effects on structures, impacts on gender sustainability, and environment are also considered.

The paper concludes that:

- The ability to escape poverty and secure livelihoods is determined by the assets (social human, financial physical and natural capital) accessible to the individuals and the community.

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- The limited success reported in the project success and the positive impacts achieved can be attributed to the community's participation in the process. The programme's accomplishments have been attributed to the in-built participation and institutional structures built into the project. For instance, the committee system leadership and participation of community members in the decision-making process are exemplary.
- The programme's objectives have been partly met through the concerted co-operation of partnerships between various stakeholders and their commitment to their roles and responsibilities.
- The numerous problems that were experienced and led to the halting of the project can be attributed to the discontent among landlords and the high expectations of the tenants.

1 INTRODUCTION

Background

The Mathare 4A development programme is located in Nairobi Kenya. The area accommodates one of the oldest informal settlements (slums) in the city. The programme aims towards upgrading of Mathare 4A slum area through the provision of basic infrastructure, socially acceptable housing and adequate access to public utilities.

The Mathare 4A Development Programme (Mathare 4A Slum upgrading Project) was identified in 1990 to address the shelter and sanitation needs in the Mathare 4A area. The approach adopted in this programme was two-fold. The first step involved conducting two concurrent studies before the implementation process. The first study was a Feasibility Study carried out in the major informal areas to find out how the shelter needs of the poor had been addressed and a Social Economic survey of the area. The Feasibility Study noted limited success in previous programmes largely because of poor security of tenure, limited community participation and the project not benefiting the targeted beneficiaries.

The programme covers an area of about 17 hectares with a population of about 6000 households (approximately 30000—32000 people). Like many slum and squatter settlements the residents belong to the lowest income bracket in the city with an average family income of 1980 per month. Housing in the area was largely composed of mud and wattle structures which were erected by structure owners and going at a rent of between 300 and 400 shillings per month. On average one family occupies one room. There was no infrastructure in the area before the project started. The only access was a rudimentary earth track barely passable during the dry weather and impassable in the rainy season. Two public toilets managed by the city council served the entire population. A large proportion of the residents used sub-standard pit latrines and any open latrines being erected next to houses which created an unhealthy living environment. Water was available from a few kiosks and sold at 3 to 4 times the official Nairobi City Council rates.

The final goal of the programme is to improve the general living environment in the area through provision of urban infrastructure, socially acceptable housing and adequate access to public utilities. The programme beneficiaries are the residents in the entire slum area especially those without adequate housing and other basic amenities. The intended programme was to ensure that after improvements are made, the housing would still be affordable to the beneficiaries. The purpose was to avoid displacements of the existing residents out of Mathare 4A area. On completion of the new houses, residents would be encouraged to become owners through a Purchase Scheme and the poor residents would be given the opportunity to rent the new dwellings at affordable rates.

Initial studies (MPWH, 1992, 1995) in the pilot area (covering about 20,000 inhabitants) showed that the erection of formal multi-storey houses would have led to massive subsidies. In addition to this, charging higher rent would have resulted in the poor residents shifting to other slums and subsequent replacement by more affluent people.

The programme's implementation was in two phases. The first, a pilot phase commenced on 8th May 1992 and was completed in September 1996 at a cost of 122 million Kenya shillings (DM 3.75 Million). The first phase resulted in the construction of 1500 new rooms that replaced temporary structures. The houses were constructed using Stabilised Soil Blocks and 1700

households (approximately 11000 people) had access to portable water, sanitation facilities, roads, footpaths, street lighting and garbage collection points.

The second phase was the main programme. It covered 4300 households at a projected cost of 420 million shillings (DM 13 million). The main programme implementation commenced in March 1997 and was planned to end in December 2001, but due to various problems, it has not been completed yet.

2 STUDY OBJECTIVES AND METHODOLOGY

2.1 Objectives

The objectives of the study were to examine:

- The vulnerability context of the beneficiaries before and after the organization's intervention
- The impact of the project on the asset portfolio (capital financial, human physical natural and social) on two groups in the area – tenants and business community
- The effects of the programme's work on structures process and livelihoods strategies
- The outcome of the programmes work in the terms of gender sustainability, environment and vulnerability

The core activities entailed

- Literature review
- Establishing benchmarks or deriving the same through perusing available literature on the sustainable livelihoods concepts and approaches
- Field survey and interviews with staff of the Mathare 4A Development programme, the beneficiary groups and key stakeholders
- Data analysis and report writing
- Presentation of the findings

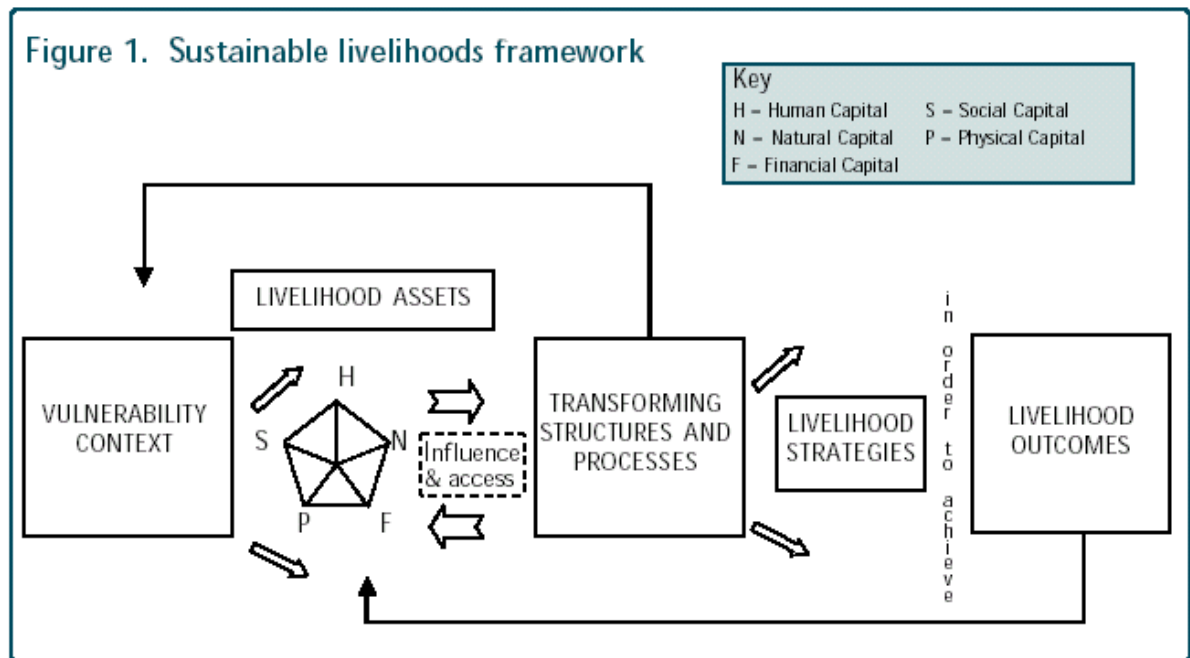
2.2 Methodology

The sustainable livelihoods approach has been used in order to assess how the on-going project addresses the livelihoods aspects of the target beneficiaries. It is an exploratory study to establish how the Mathare 4A Development Programme has affected the livelihoods of the people residing in the area. The sustainable livelihoods approach is a way of thinking about the objectives, scope and priorities for development in order to enhance progress in poverty elimination (C. Ashley & D. Carney, 1999).

This approach is based upon evolving thinking about poverty reduction, the way the poor live their lives, and the importance of structural and institutional issues which stem from concerns about the effectiveness of development activities. It is broad, encompassing and aims at increasing the sustainability of poor people's livelihoods through livelihood promoting activities and recognizes the multiple dimensions of poverty identified in participatory poverty assessments.

Its goal is therefore to help poor people achieve lasting improvements against the indicators of poverty that they themselves identify, resulting in a more effective contribution to poverty elimination. This results in addressing the priorities of poor people, both directly and at policy level. The approach therefore puts people at the centre of development. It stresses the importance of understanding various livelihoods components and factors. In order to

understand and analyse the livelihoods of poor people, the sustainable livelihoods framework was developed (Figure 1 below:)



The framework views people as operating in a context of vulnerability. Access to assets or poverty reducing factors gain meaning and value through the prevailing social, institutional and organisational environment. These are various factors, which either constrain or enhance livelihood opportunities and these have varying outcomes.

Insecurity here is viewed in terms of the well being of individuals, households or the community vis-à-vis a changing environment. The environmental changes, threatening welfare include ecological, economic, social or political aspects. It can take the form of long-term shocks and trends or may be seasonal. These changes increase risk, uncertainty and result in declining self- respect. Analysing vulnerability also involves identifying resilience in exploiting opportunities and recovering from the negative effects of the changing environment. The means of resistance is the assets that the individual, household or community can mobilize in the face of hardships. Moser (1997) purports that vulnerability and assets ownership is therefore closely linked.

Sustainability is a key concept in the approach. It implies accumulation in the broad capital base that provides the basis for improved livelihoods, especially for poor people.

2.3 Field Surveys:

Field surveys undertaken in this study covered four different groups of people:

- a) Officials in the Ministry of Public Works and Housing - this focused on the Government's role on the project.
- b) Staff members of the Amani Housing Trust, the implementing Agency - they provided-invaluable information and insights on the project and how the programme was managed.

- c) The business community - the group interviewed comprised business people in the upgraded areas.
- d) Tenants - these were sampled from the areas where the programme has constructed new houses and the old houses. A questionnaire was prepared and administered to the household heads or their spouses. Observations were made on the living and environmental conditions in the area. Discussions were also held with representatives of community-based organisations (CBO's) and individuals in the areas for the purpose of soliciting their views.

2.4 Data Analysis and Presentation

The statistical package for social scientists (SPSS) was used to analyse the data collected. Quantitative techniques were employed in analysing the data obtained in order to make the relevant inferences. The analysed data is presented in graphs, tables and narrative form.

3 STUDY FINDINGS

3.1 Policies, Institutions and Processes

The land in this area was public land and owned by the Government of Kenya. The slums of Mathare 4A developed in the early sixties (MPWH, 1995). The housing units constructed were illegal and did not comply with the Building Code (Grade I and II by-laws). The land belonged to the Government and house owners were squatters. Thus, Building Plans would not be approved in City Hall. The area falls under Grade II by-laws according to Planning Regulations. Thus, Code '95 would be applicable but the Programme started before the 'adoption of the revised standards. However, the programme used Kenya Bureau of Standards specifications for the Stabilised Soil Blocks and ferro-cement tiles for walling and roofing, respectively. Both materials are affordable, environmentally-friendly and created employment opportunities to the local residents in the area.

The area has a long history, but the occupants of the area could not be allocated land on grounds of long occupation for two reasons:

- The land was public land and belonged to the Government of Kenya.
- The provisions of the Limitation of Actions Act under which the residents would have claimed undisturbed possession for more than twelve years, does not apply on Government land. This scenario therefore, meant that the residents were not only illegally settled but were under constant threats of eviction, harassment and extortion - by landlords and crime syndicates.

The Mathare 4A Development Programme was implemented at a period when the government was trying to incorporate the potential of all actors in the housing market to develop housing for its citizens. The housing units in the area were similar to other slum and squatters settlements in Nairobi City. The basic material of construction was mud and wattle for the walls, earth floors and GCI roofing sheets. The doors were made of timber, while the windows were wooden shutters. In rare instances, a number of houses had cemented floors and externally plastered walls to reduce weathering. The rents for housing units with these improvements were slightly higher than others. The houses were poorly designed and built. However, the landlords were keen to maximize on the rents and used temporary building materials.

The houses comprised approximately 15 single housing units/rooms, in a block. These units were constructed for multiple-purposes. The average house size was 9 - 12 sq. m. and a large

percentage of the housing units were let out as single units. The rooms were also used for cooking purposes. The housing units had inadequate ventilation, which was worsened by the smoke from cooking fires, and kerosene lamps used for lighting purposes. However, these varied according to the quality of the housing units. About 70% of the structures were owned by absentee structure owners while the remaining 30% were owned by resident structure owners. Approximately 92% of all the resident families in Mathare 4A were tenants while the remaining 8% were landlords. In the 1992 survey, it was estimated that the area had approximately 8,700 rooms of which 700 were vacant.

The total population in the area according to the first Pilot Survey of 1992 was about 6,000 households, which were made up of approximately 20,000 - 30,000 people (MOPW, 1992). The average household sizes were found to be 2.13 persons in 1992. The area had three distinct household types as follows:

- Family households with an average size of 4.2 persons per household.
- Single mother households: these were the female-headed households and comprised of an average size of 4.2 persons.
- Single households: the majority of these were headed by married men whose dependants lived in rural areas. The others were single people with an average size of 1.3 persons.

The population in Mathare 4A is among the lowest-income bracket. A survey carried out in 1995, in the area revealed that 30% of household heads were formally employed with a regular salary. However, a large percentage was employed in the informal sector. They were either employed by informal entrepreneurs, casual labourers or self-employed. Though not openly accepted, unemployment was also noted to be widespread in the area (MPWH, 1992). It was also noted that when the temporary status of unemployment persisted for long, the people would move back to the rural areas.

The main source of water supply in the area was water kiosks. This was relatively well organized by private sellers who built water kiosks as points of distribution. Though the water was in adequate supply, the price charged was high. The surveys carried out in the project area revealed that the cost of water was four times higher than the price charged by the Nairobi City Council. This high cost of water therefore, reduces the amount of water used by a household greatly undermining health and hygiene standards.

The entire Mathare 4A had only two public toilets, which were managed by the city council. Only one was functional due to poor maintenance. In addition, to the public toilets, some landlords provided pit latrines for their tenants. These were however, not adequate in number and those households that did not have pit latrines used the open drainage channels or any available open areas for human waste disposal.

Solid-waste disposal services were inexistent in the area. In view of its illegal status, the area was not accorded any of these services by the local authority. Garbage was therefore strewn all over the village and was often contaminated with human waste. However, despite the lack of solid waste disposal services certain areas were designated as dumping grounds. The most prominent was the area along the cliff where a pond had formed. The garbage was also thrown into the river and washed downstream. In the rainy season, the garbage was washed down from the drainage channels into the river and washed down stream further contaminating the rivers.

The illegality of the settlement meant that the area was not recognized as a formal housing area and therefore could not be provided with electricity. Neither did the structures comply with

the building and planning regulations of the Nairobi City Council. In view of that, the area was not served with electricity except for two housing units located next to the "Gateway Night Club" next to the entrance of the area. The main source of lighting was therefore kerosene lamps (koroboi). These do not adequately light up the housing units and also emit smoke, which is not only uncomfortable to the eyes, but also increases the level of indoor air pollution.

No roads were provided in the area. The only access to the area was through a rudimentary earth track. This road is in poor conditions and is virtually impassable during the rainy season. Other than this main semi-permanent road, the area has numerous footpaths that are not well defined and are also water logged especially during the rainy seasons whereby they become slippery and expose the residents to injury.

In the event of fires, the residents in the area suffer numerous losses, both in terms of property and loss in human life. Fire-fighting services cannot access the area due to the poor state and narrowness of the roads. Other life-saving services like ambulances cannot also access the area resulting in numerous problems in the settlements. Mathare North Health Centre in the nearby settlement serves the area but is overcrowded due to the high number of patients. However, the area is served by private clinics both within and in the neighbouring areas.

The area was served by one Primary School, Mathare 4A Primary School located in a separate plot at the entrance of the area. However, due to the high population density and scarcity of land, the school has only a few open spaces as the rest are occupied by squatters. This therefore limits the possibility of expanding the school. Six nursery schools were also operating in the locality. These were attached to civic offices or the churches existing in the area.

The programme activities relied heavily on community participation, which is people centred and had strong links to sustainable livelihoods strategy. The community structure established by the programme ensured that the needs and aspirations of the community were identified and prioritised by the target group. The programmes participatory nature strengthened the existing development approach and strategic planning.

The informal support networks reduced due to relocation of some of the households. Before the project began, the communities had formed very strong social networks which had been in existent for a long period of time. However, due to the developments taking place, people had to be relocated to pave way for organized development resulting in the breakdown of the social networks. Though, new ones have been formed, they are not as strong as the older ones as it requires alot of time to build trust and build community cohesion.

The initial community organization training in maintenance and management of housing structures and wet cores was instrumental in applying the sustainable livelihoods approach in the poverty elimination exercise. This was difficult initially in view of the problems associated with organizing slum dwellers and working in illegal settlements with illegal structures-owners whose driving force is a profit-motive. But later it was easier and acceptable to the people.

The sustainable livelihoods concept is addressed in the Mathare 4A project in various ways. The project is people-centred and responsible to the needs of the people. It has used multi-level approaches to effect development in the area through service provision gradual improvement of housing, incorporation of income-generating activities, building and strengthening structural organisations in the community and capacity building (training of artisans in the community).

The feasibility study at the start of project analyzed problems facing earlier housing projects and the approach adopted by Amani Housing Trust (AHT) was realistic and manageable. The community worked closely with AHT and shared their opinions, problems and solutions during the programme implementation phase. The programme assessed opportunities, available in the neighbourhood for development and incorporated them in the livelihood priorities. This was addressed by allowing people define and prioritize their needs. The programme responded to the needs of the people and was flexible. It can be said to have a strong livelihoods approach though it is largely sector in nature. However, it has taken into account the needs of the people (basic services and improved housing) by dealing with the priority concerns of the households and built upon the experience and coping mechanisms of the people/community. The project incorporated income-generating activities at neighbourhood level by constructing stalls (small shops) and small business premises for small-scale commercial activities (tailoring, woodwork).

3.2 Impacts on Asset Portfolio

The land has been transferred from the Government to the Project (Amani Housing Trust), which has taken over the structures from the former absentee owners, and guaranteed the residents the right to benefit from the Project. The residents pay rent to the Project. The initial proposal was to pay rent at the same level as before. However, this was not possible due to the poor economic performance in the country. Inflation and unemployment rates were high and the residents did not feel that they were consulted adequately enough in relation to rents. The rent they used to pay was used to maintain existing mud and wattle structures. Later when infrastructure was developed the surplus fund was used for housing development. The land that was acquired from the better planning was used to develop community facilities and other economic activities in the area.

The Programme has constructed over 1500 new rooms using better designs with stabilized soil blocks for walling and replaced old and dilapidated mud and wattle rooms. The provision of portable water and sanitation, road and footpaths network, street lighting and garbage collection have transformed housing conditions and shelter provision, improved health facilities and reduced incidence of diseases, improved access and infrastructure, provided better housing and standards of living for the residents. Employment opportunities created in the Programme were available to the target group through the participatory approach.

The impacts on assets portfolio covers two of the interviewed groups namely; tenants and the business community.

2.1.1 Tenants

A large percentage of the population in the area has received primary level education (57%) as shown on Table 1 below, though only 7% have training beyond secondary education. 13% of the sampled population had received formal education. This is reflected in the kind of employment opportunities that the people are engaged in. This type of employment does not yield high returns which increased vulnerability of the population to external factors like inflation, unemployment, floods and diseases.

TABLE 1 EDUCATION OF RESPONDENTS

| Type of Education Received | Percentage |
|----------------------------|------------|
| Other e.g. College | 7 |
| Secondary Level | 23 |
| Primary Level | 57 |
| Formal Education | 13 |
| TOTAL | 100 |

Source: Mathare 4A Sectoral Study, ITDG-EA, 2001

The age of respondents ranged from 11 years to over 45 years as shown in Table 2. The majority of the interviewees being in the middle age-band of 26-45 years.

TABLE 2 AGE DISTRIBUTION OF RESPONDENTS

| Age of Respondents Years | Numbers | % of Total |
|-----------------------------|-----------|--------------|
| 11-25 | 8 | 26.6 |
| 26-45 | 14 | 46.8 |
| Over 45 | 8 | 26.6 |
| TOTAL | 30 | 100.0 |

Source: Mathare 4A Sectoral Study, Survey Dec. 2001, ITDG-EA

The majority of the respondents, (63%) did not belong to any organized social welfare groups. Those who have joined a group (37%) indicated that they benefited in various ways such as; solving conflicts between neighbours, and members of the community are-advocating payment of lower rents especially by disabled members of the community etc. However, the concept of joining a group has not been fully grasped by residents as an instrument of social welfare and improvement of living conditions. This is in view of the large number of respondents 63% who did not belong to any group. Women (13%) appeared to be more represented in the social groups than men (3%) in the study areas while the mixed groups had a fair distribution (16%).

The mean household size is 5 persons. This indicated an increase of over 1 person, per room over the 1992 level. Most units {17%} are one-roomed measuring 9 - 12 sq metres. Only 20% of the units were owner-occupied, the rest were leased out. This indicates high tenancy: ownership ratio (5:1). The programme was designed to accommodate rentals so that the incomes are re- invested in the maintenance and further improvements to enhance sustainability.

TABLE 3 OCCUPANCY RATES

| Person/Room | No. Of Units | % of Total |
|-------------|--------------|------------|
| 1 | 2 | 6.7 |
| 2 | 2 | 6.7 |
| 3 | 5 | 16.7 |
| 4 | 6 | 20.6 |
| 5 | 2 | 6.7 |

| | | |
|------------|-----------|--------------|
| 6 | 5 | 16.7 |
| 7 | 3 | 10.0 |
| 8 | 2 | 6.7 |
| 9 | 1 | 3.3 |
| 10 | 1 | 3.3 |
| 11 | 1 | 3.3 |
| 152 | 30 | 100.0 |

Source: Mathare 4A Sectoral Study, 2001 ITDG-EA

The population in the study area falls within the low-income bracket in the City. About 33% of the households earn an income of below KShs. 2,000.00 (US\$ 1.00=KShs 79.50) per month.

TABLE 4 HOUSEHOLD INCOME

| Income/Month (KShs.) | Number | % of Respondents |
|-----------------------------|---------------|-------------------------|
| Up to 500/= | 3 | 10.0 |
| 501 - 2,000/= | 7 | 23.3 |
| 2,001 - 4,000/= | 5 | 16.7 |
| 4,001 - 9,000/= | 5 | 16.7 |
| 9,001 - 15,000/= | 2 | 6.7 |
| Unknown | 8 | 26.0 |
| Total | 30 | 100.0 |

Source: Mathare 4A Sectoral Study 2001 ITDG-EA
(US \$1.00=KShs 79.50)

The average rent paid per month is KShs 257 per month on completion of the project. This compared well with the previous minimum rent of 200/= per single room of mud and wattle walls and KShs 237/= for concrete walled units. This is superior accommodation and the rents charged are lower than those charged by the landlords- of KShs 300-400/= per room prior to project's introduction. (See Tables 5 and 6)

TABLE 5 RENTS PAID BEFORE PROGRAMME STARTED

| Rent/Month (KShs.) | No. Of Units | % of Total |
|---------------------------|---------------------|-------------------|
| Less than 200/= | 5 | 18.5 |
| 200/= | 3 | 11.1 |
| 250/= | 7 | 25.9 |
| 280/= | 1 | 3.3 |
| 300/= | 4 | 14.8 |
| 400/= | 4 | 14.8 |
| Missing | 3 | 12.6 |
| | | 100 |

Source: As above

TABLE 6 RENTS PAID AFTER PROJECT COMPLETION

| Rent/Month (Kshs.) | No. Of Units | % |
|---------------------------|---------------------|----------|
| 300/= | 6 | 20.0 |
| 350/= | 6 | 20.0 |
| 400/= | 9 | 30.0 |

| | | |
|--------|---|-----|
| 500/= | 2 | 6.7 |
| 520/= | 1 | 3.3 |
| 550/= | 1 | 3.3 |
| 800/= | 2 | 6.7 |
| 1000/= | 1 | 3.3 |
| 1300/= | 1 | 3.3 |
| 2000/= | 1 | 3.3 |
| | | 100 |

Source: As above

In terms of landlord tenants relationship, the pattern of ownership in the project has changed from 8% of structure owners (landlords) and 92% tenants in 1995 to 20% owned by landlords and 80% owned by tenants in 2000 (ITDG-EA, 2002). This is contrary to one of the project's design objective, to encourage rental accommodation. The former structure owners felt that the land should have been allocated to them rather than to the Amani Trust Fund. They also felt that the compensation received was inadequate. This would have given the structure owners an opportunity to increase rents at will and exploit the tenants whom the project intended to protect.

The security of tenure has led to improved social and economic infrastructure in Mathare 4A. This was effected by legalization of existing buildings and creating a stable investment environment to the poor and reduced their vulnerability. This along with the services provided acted as an incentive to the community to increase co-operation and more work in their community structures.

The insecurity previously experienced through harassment by landlords (eviction; whimsical increase of rents) or demolitions by Nairobi City Council has subsided. The allocation process of houses, determination of affordable rents and fair compensation for relocation and enhanced self-sustainability of the programme are carried out by the relevant committee and all actions are transparent.

2.1.2 Business Community

The business committee was formed to manage and administer business related issues of the community living within the project area.

The informal sector employs about 90% of the respondents while 7% are in formal employment. The former, are absorbed in "Jua Kali" enterprises, casual work, self-employment including hawking, kiosk ownership etc. Only about 3% of the respondents indicated that they were unemployed. However, unemployment is widespread as observed during the survey by MPWH of 1992.

The programme also provided capacity building activities as related to the management and maintenance of the project activities and social dynamics. Other skills noted in the project area included; dressmaking, welding/mechanics, driving, food processing, carpentry/joinery and education on social matters.

The survey indicated that 57% of the respondents had one form of training or another. The distribution of the skills taught is on Table 7.

TABLE 7 TYPES OF TRAINING PROVIDED BY THE PROGRAMME

| Type of Skills | No. Of People | % of Total |
|-----------------------|----------------------|-------------------|
| N/A | 13 | 43.5 |
| Dressmaking | 7 | 23.5 |
| Welding/Mechanics | 6 | 20.0 |
| Driving | 2 | 7.0 |
| Food Processing | 1 | 3.0 |
| Carpentry/Joinery | 1 | 3.0 |
| Total | 30 | 100.0 |

N/A - not available

Source: Field Survey ITDG-EA

The training especially from project implementation activities comprised management, maintenance and repairs of project facilities, education on social and health matters. Both women and men were trained in production of Stabilised Soil Blocks.

The survey revealed that there were changes/improvements in income levels due to the project activities. The interviewed residents reported that the programme was successful particularly in improvement of sanitation, better standards of living, housing and improved infrastructure. The business people from the area have leased the 30 small business kiosks constructed by the programme. In addition, the programme provided the physical capital for the infrastructure network. This comprises improvement of sanitary facilities, improved accessibility for transport of goods and services for sale in the kiosks. Before the programme's intervention, the access system was a rudimentary earth tract, impassable by motor traffic in dry weather and practically impassable in the rainy season. This has boosted the sales of goods stocked in the kiosks and small shops, which has attracted more business and increased earnings. Installation of streetlights enhanced businesses and enabled people to work late and longer hours, as there is increased security. The quality of human capital has been improved through training of local artisans like dressmakers, welders, and carpenters for self-employment. This enhances business operations, better health and training for achieving sustainable livelihoods objectives.

The rents charged for old business rooms constructed of mud and wattle averages KShs. 400 per room, per month. New business rooms constructed of stabilized soil blocks are leased at KShs 500 per room, per month. The going rate for new business kiosks of Stabilised Soil Blocks is KShs 200 per room, per month, hence making rent affordable.

The financial capital is from personal savings, credit societies or "soft loans" whose repayment period is longer than that provided by financial institutions. The people are known to one another and this encourages social responsibility, confidence and trust. This creates informal safety nets. Often customers obtain monthly credit especially for household goods, payable at the end of each month.

At intra-household level, some people complained that they could not carry out the former income generating activities like illegal brewing of liquor or keep animals which have created uncertainties in income sources.

3.3 Vulnerability of Beneficiaries

The vulnerability in the present context refers to the negative outcomes of the well being of individual households or communities from environmental changes. Vulnerability on the

individual households and the community are examined before and during the implementing organizations' interventions. The first implementation stage of the Programme started from 1995 to May 1996. During this period, participation of the target group i.e. residents, with community elected leaders at all levels, was involved in all decision-making processes of the programme. Also, training of the locals in management of facilities provided like wet cores was undertaken at early stages. The community was organised into groups of 40 - 100 households, after extensive information and education campaigns and discussions. The community structure was organized such that leaders were elected at grass-root level along each wet core. A wet core contains water supply points, shower, a toilet and washing place connected to the sewer, which serves approximately 10 -15 families. Wet core leaders were responsible for controlling water usage, ensuring payment of water bills and maintenance of wet core levels.

The wet core organization structures have resulted in more responsible residents and enhanced harmony in neighbourhoods. Every six wet cores then selected one leader who represents them in the Muungano (assembly of leaders) making up over 40 leaders.

The wet cores also exist where housing improvements have not started because water and sanitation are the highest ranking in terms of needs identified by the community. Muungano leaders form the groups of leaders who form the elected officials of the existing operational committees i.e. business, social and health committees. A fourth and independent committee, exists, and handles rent default. It is made up of the Area Chief, 2 representatives from the implementing agency, 3 representatives from Muungano and a community Development Officer.

The Programme concept deliberately avoided construction of unaffordable, multi-storey houses, which would have resulted in massive subsidies, unaffordable rent by the target group and relocation of poorer residents to other slum areas. The high employment level and reliance on the informal sector (90%) activities increased the vulnerability, risks and shocks to the population, (unemployment, ill health, inflation, floods, and droughts).

Prior to the project initiation, the residents spent over two or three hours fetching water and sometimes longer. The project provided water kiosks at strategic locations and now it takes the majority of residents only 15 minutes to fetch water. Water prices were as high as KShs 30 in times of poor water supply for a 20 litre jerry can. Other studies of similar settlements in the city indicate that the price of water is about 5 times higher than the price charged by the Nairobi City Council. Health conditions have improved through provision of sewers and latrines to about 36% and 30% of the housing units, respectively. According to the survey, the incidence of diseases like malaria, cholera and other water-borne disease have fallen since the programme started. About 43% of the respondents reported lower incidence of all diseases while 33% stated that the situation was the same as before.

The project's activities have contributed to the reduction of vulnerability of the poor by helping the poor especially in employment. For instance, by adapting a participatory structure, the programme has built a strong community structure for the residents. Training in building skills improved their greatest asset, labour. The residents have been used in the construction process of the-programme. About 70% of the labour force in the programme was provided by the residents. They also received skills training on maintenance.

In terms of reducing human health shocks arising from poor environmental conditions, low incomes, poor health and poverty, provision of water and sanitation reduced the incidences of acquiring environmentally related diseases. Provision of roads, sewerage facilities and drainage minimized natural shocks like seasonal floods, which greatly affected the residents.

To prevent increasing vulnerability as a result of external factors such as decline in real income, wage employment, lack of access and declining quality of urban services some of the coping strategies adopted by the community and the project include:

- Provision of employment and improved security at individual level, which had enabled residents to carry out business activities for longer hours.
- More people are involved in hawking, vegetable selling and are able to sell for longer hours
- The improved road network opened up the area and therefore there are more buyers from surrounding areas.
- Improved physical mobility due to better public safety.

3.4 Outcomes on Gender, Sustainability and Environment

a) Gender

The single-mother households were the least privileged groups and had the lowest income levels. This scenario can be attributed to the fact that in these households, there is only one breadwinner. 'Family' households had slightly higher incomes than the single-family households did because there are generally more members contributing to household income.

About 53% of the respondents were females and 47% comprised of men. However, out of this sampled population, 73% of the male interviewed were household heads, hence women comprised a smaller percentage of sampled household heads. This however, should not be taken as an indication that a large proportion of households in the area is made up of male-headed households as only a small sample was taken for purposes of this study.

There is merit in responding to women's vulnerability as a strategy to eliminate poverty in project implementation. The women's perceptions were changing after social education was carried out during the project implementation. This has proved worthwhile as shown by the number of women associations joining or groups in the community relative to men. It is expected that gender interventions will include facilitating ownership and rental of units by women. This has arisen from the tangible socio economic benefits arising from the project.

The survey findings showed that women groups have members four times more than the men groups. This indicates that women's participation in community social activities was more pronounced and anticipated more benefits than their male counterparts. Two women were members of the Social Committee, whose responsibilities include:

- Handling social problems in the community
- Dealing with disabled members of the community, recommending for advocating payment of lower rent etc.
- Conflict resolution between neighbours and other members of the community

However, the committee is faced with peculiar problems of ethnic and tribal nature. However, that notwithstanding it has been very effective and knows the community needs and priorities. This nature of work enables women to articulate their concerns especially regarding domestic and social issues. Also, there is increased allocation of time by women to income-generating activities due to an increase/improvement in the quality of urban services.

b) Sustainability

The social services like education and training ensure that people gain skills and knowledge while economic infrastructure (water, transport and electricity) and health care ensure that the skills and knowledge can be used productively. It also means improvement in delivery and effectiveness of level of services, which ensure security and sustainability in the long run.

The participatory nature of the project ensured employment of target groups, fair allocation of houses and affordable rents to cater for the poorest among the target group. In maximising the use of land, community facilities and economic development, the programme was designed to become self-sustaining. This will generate capital to be re-invested in additional housing and further reduce poverty and increase the housing stock.

The Amani Housing Trust ensured that the rents paid are used for maintenance and are affordable to the target group. The financial sustainability is achieved through the target groups' contributions by payment of affordable rents. The new houses are offered on a rental basis with subsidized capital costs to the residents of the area. The participative structure of the target group will determine allocation priorities and should also decide upon the number of houses to be retained for renting on a minimum affordable level to cater also for the poorest among the residents.

The independent Project Body (Amani Housing Trust) has the long-term responsibility for administration and maintenance of the project. The Trust is a non-profit making body. Relocation requirements were such that any displacement has to be within the project area. This ensured that no target group members would be moved out of their social environment.

These factors ensure a maximum degree of self-sustainability, as the beneficiaries themselves will, at least partly, generate the capital for their own development. This will reduce vulnerability both from donors and from the Government. It will also help to reduce general dependency from foreign aid, unemployment, shocks and other risks. After the initial provision of infrastructure on a grant basis, the project should be able to sustain its own formal housing development. Additional support from the donor will accelerate reinvestment.

c) Environment

The entire area lacked sewerage facilities. Hence, all the wastewater drained into open dug out drainage channels and in the narrow paths in between the housing units. During the rainy seasons, the area being a valley would get very flooded. The waterlogged conditions that existed even during the dry season were creating ideal breeding grounds for disease-causing vectors. Children were at great risk, as they had no playing grounds and used the few open spaces for playing. The low gradients and virtual impermeability of the soil caused the wastewater to stay stagnant for long periods even in the dry seasons (MPWH, 1995). The wastewater combined with the human waste drains into the Mathare and Gitathuru rivers polluting them heavily.

There is also a waterlogged area in the project area that was used for solid waste-disposal and often resulted in severe flooding and environmental problems. The area located along the former quarry cliff, which forms the Northern boundary of Mathare 4A also suffered severe sewerage problems as the storm water outlets of the large premises on top of the cliff drained directly into the area. Eventually, it formed relatively large oil ponds directly under the cliff within the slum areas (MPWH, 1995). The living environment has also improved due to programme

activities. The improved storm water drainage especially at the cliff area eliminated flooding which was, prevalent every year.

The major impact on the living conditions is in the following areas:

- **Improvement of the sanitary situation**, from 1 public toilet serving approximately 5,000 persons to current 1 "Wet Core" comprising of toilet, shower, washing slab for every 10-15 families. The storm water drainage system designed has improved the drainage situation, which was previously flooded for most of the year.
- **Overall drainage design has resulted in improvement of drainage system.**
- **Improved Accessibility** - with 12 metre-wide access road and footpath network (bitumen standard) serving the area.
- **Street lighting is being installed and garbage collection points** have been constructed at various locations, which are within walking distance (a maximum of 50 metres from every block of houses).
- **"Relocation Housing"** of the same average size but substantially, better quality have been constructed. The beneficiaries are the intended and identified target group. The houses have been constructed with stabilized soil blocks. This technology, which is improved earth (soil) construction has been researched on and developed by the Housing and Building Research Institute (HABRI) of the University of Nairobi with the assistance of German Technical Assistance (GTZ).

3.5 Lessons Learnt and Limitations

Some of the lessons learnt during programme implementation are:

- a) Land is a highly valued and sensitive item. Allocation of land in the project to an institution, AHT, in trust for the poor residents rather than the previous structure owners resulted in better resource allocation and land management.
- b) Renting of units to the targeted population improved security of livelihood.
- c) The institution, AHT, that was allocated land was neutral and administered the land well, ensured better maintenance of units and enjoyed government's support.
- d) The level of community participation should be limited to certain fields based on educational background and experience. This is because some representatives may not understand - some of the socio-economic dynamics and lead to political interferences.
- e) The education and health services provided, though highly subsidized have generally improved the living and environmental conditions of the area.

The major program limitations experienced were:

- a) The former structure-owners felt that the compensation paid for the structures was inadequate. They also, felt that the land should have been allocated to them rather than the Amani Housing Trust.
- b) The tenants expressed the view that they should not pay any rent at all, if the project was really intended to benefit them. However, they were not taking into consideration the maintenance of the project and further development to benefit the wider community.
- c) Political interference and negative mass media coverage caused project delays. Indeed there were bloody conflicts between residents and Nairobi City Council in 1999. However, the halting of the project in February 1999 led to greater commitment and support to the project by the government (Daily Nation, 1999). However, there were many other problems experienced after that leading to the halting of the project.

- d) The overcrowding of people (over 1200 persons per hectare) and structures interfered with the implementation schedule of the project.

4 CONCLUSIONS

Mathare 4A Development Programme is a social project, which involves people at all levels. The programme was flexible and responded to some of the needs of the people. The programme indicated a strong livelihoods approach. It took into account the needs of the people by dealing with priority concerns of the households and built upon the experience and coping mechanisms of the people and community.

The project targeted to improve the living environment of over 30,000 residents (Daily Nation. 1999). Most of the residents interviewed were satisfied with the project. Generally the community benefited by construction of nursery school, dispensary and other services. But there were problems with the shanty dwellers (tenants) whose source of livelihood was threatened.

Some of the residents expressed the disappointment in the project' approach in various ways:

- Residents are not allowed to keep animals for sale.
- Family size is not considered in regard to allocation of rooms and there is overcrowding.
- People's views are not fully considered even though the management seeks their opinions.

- The residents felt that a large percentage of people are employed outside the project area. Some social groups have broken up due to relocation of people.
- The new houses are poorly constructed with big cracks and FCR tiles are of poor quality and allows dust into the housing units.

The conclusions that can be made from study are:

- a) The project exemplifies implementation of the government's policy on informal settlements of gradual improvement in terms of physical infrastructure, public utilities, services and affordable housing without occasioning forced displacement of the resident population in the informal settlements. The government undertook to ensure security, provide land, exempt certain statutory taxes (proceeds from rental income not subject to income tax, exemption from land rates). These aspects enabled regular maintenance of the constructed housing units. The building materials used (stabilised soil blocks and hollow blocks) were affordable and complied with the Kenya Bureau of Standards requirements. The study noted that those who have better access to services and more assets tend to have a greater range of options to improve their livelihoods. People's ability to escape from the vicious circle of poverty is dependent upon accessibility to assets, infrastructure and supportive institutional and regulatory frameworks.

- b) Where participatory planning and community involvements are practised the poor urbanites have the ability to switch between different strategies in order to improve and secure livelihoods.

- c) The provision and accessibility of infrastructure services, capacity building, improved security of tenure and other programme achievements have increased access to public services and productive resources to the entire poor community. In turn, this has increased livelihood assets and security in the community. Thus the programme

addresses direct initiatives in poverty eradication and meets one of the objectives of the National Poverty Eradication Strategy.

- d) The programme has demonstrated the importance of participatory (community) approaches in slum upgrading projects and direct benefits to the target population. Key factors for success are, team work, partnership with all stakeholders and sharing information on the project on a regular basis. This has improved the management of local peoples' development matters.
- e) The key improvements and achievements of the programme are:
 - Improved sanitation, security and environmental quality
 - Better standards of living
 - Better housing using appropriate technology
 - Improved infrastructure.
 - Capacity building among residents in maintenance of programme facilities, education and discussions on social matters, conflict resolution and others.
- f) The multi-sectoral nature, demonstration of improved aspects have won the favour of development partners and donor support on other slum upgrading and poverty eradication efforts in the Nairobi City.

Examples of these are:

- ILO Assist's involvement in design of labour-based infrastructure improvement project in Dandora area
- Action Aid's support in Technical Assistance Committee of NISCC
- DFID's involvement in Nairobi Poverty Alleviation Project on Strategy and Action Plan Formulation.

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