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1. Bamberger M. et al. (1982), *Evaluation of Sites and Services Projects. The Experience from Lusaka, Zambia*, World Bank Staff Working Papers Number 548. World Bank, Washington DC, USA.

2. Clarke, J., S. Jones, J. Pickford et al. (1989), *Evaluation study of Hyderabad Slum Improvement Project* (monograph), Overseas Development Administration Report EV 475. London, UK.

Back to Basics: A community-based environmental health project in WestPoint, Monrovia, Liberia

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I. INTRODUCTION

THIS IS A case study of an environmental health project unusual in the context of donor supported urban planning in Third World countries: it is small-scale, initiated by slum dwellers, and almost sustainable by them from its inception. Interestingly, the main role of the donor in the project, a Canadian based agency, Global Ed-Med Supplies Inc., was in pre-project technical assistance facilitating community identification of priority health problems and tenable solutions, and in providing seed-funds for the initial recurrent expense of local workers. Many projects tend to favour capital expenditure on infrastructure, leaving longer-term maintenance and management to ill-prepared slum dwellers or to already over-burdened municipalities ⁽¹⁾⁽²⁾, but the West Point project rejected from the outset any capital expenditure on infrastructure as an "infeasible" option.⁽³⁾ This was for several reasons, but the most pressing sprang from the slum dwellers' familiarity with previous sanitation and water projects and their awareness that the capital input of infrastructure was the least of project costs in the long-term. The word "sustainability" for them, really did mean that after the project ended, they would be fully responsible for maintenance of any chosen inputs.

As a result, West Point slum dwellers planned and implemented a health project, not with health facilities, but in sanitation and waste disposal. In 1990, they asked the Canadian based donor for education funds to allow them to consolidate the gains made by their environmental health initiatives. This project is not an example of an ideal system, but of an innovatively thought-out interim measure for improved environmental health. It is perhaps most noteworthy as a case of real health planning by slum dwellers in which the community recognized their need for self-reliance and in which the donor agency was able to facilitate this realistic community decision. In a move not typical of donor projects, Global Ed-Med Supplies Inc. used its resources largely for the unglamorous but invaluable costs of community mobilization and project confidence-building by initial support of community workers. Despite some decades of experience, there is still too little attention given to this subtle but vital process

3. Christopher, M. (1989), "Preliminary report of West Point current and proposed projects: Monrovia, Liberia" (unpublished paper submitted to Catholic Archdiocese of Monrovia, Liberia).

4. Salmen L.F. (1989), *Listen to the people. Participant-observation Evaluation of Third World Experience*, Island Publishing House Inc. Manila, Philippines.

5. Personal communication.

in slum improvement projects.⁽⁴⁾

Readers should note that in the period since this report has been completed, there has been a civil war in Liberia. Conditions in Monrovia remain uncertain.

II. PROJECT BACKGROUND: PHYSICAL CONDITIONS IN WEST POINT

WEST POINT IN Monrovia is a densely populated slum settlement with about 30,000 people, situated in the centre of the city on a small peninsula jutting out into the sea to the west of the large industrial port. Despite its central position, the site is home to low-income groups: as with many poor urban communities found in otherwise expensive locations, the presence of the inhabitants is tolerated largely because of the poor quality of the land, making it inappropriate for other building. In West Point, another factor explaining the continued residence of the slum dwellers is their long-established political vocal-ity.⁽⁵⁾

The situation of West Point is physically unsuitable for large-scale human habitation: the western portion of the settlement is undergoing vigorous sea erosion while the eastern portion is being "reclaimed" by dumping of garbage into the sea. This attempt at reclamation is occasionally successful, but it causes heavy pollution of the sea around West Point, attracts vermin, and is under seasonal threat of erosion from rain storms and tidal variations. To compound the problems of sea erosion, the high water table (only 0.6 metres below the sand) makes the site prone to regular flooding. Despite the unsound nature of the environment, West Point is densely populated, characterized by a constant through-flow of residents, who come from other parts of Liberia and neighbouring West African cities. Its proximity to the port also makes the area one of the most economically active in the city: it is the site of a thriving domestic market, and is one of the major trading points for imported electrical goods, clothing and household items, particularly for lower-income groups. In addition, West Point is the home and marketplace for a large fishing community, who both land their catch there and smoke fish for distribution throughout Liberia.

III. WEST POINT DEVELOPMENT COMMITTEE

NOTWITHSTANDING WEST POINT'S market's informally recognized contribution to the domestic economy of the city, West Point has always been and is perceived still as a marginal settlement in Monrovia. As a consequence, infrastructure facilities are not provided or maintained on a regular basis by Monrovia City Corporation. Perhaps unexpectedly, the land tenure position of the households is better: in 1964, the residents of West Point, under squatter rights legislation, paid a fee of US \$12 to the Commonwealth District of Monrovia, to acquire ownership rights to a piece of land in this central site. Despite the change of administration during the coup of 1980, which resulted in many policy changes in Liberia, West Point citizens remain convinced of their right to the land granted in 1964 and have long been formed into an articulate and highly politicized West Point Development Committee. It is this committee which declared in 1986 that the health of their community was its highest priority for action,

6. UNICEF (1986), *Report of Seminar on Urban Situation Analysis in Liberia, June 17-19* (monograph), UNICEF, Monrovia, Liberia.

7. MPEA/Westinghouse (1987), *Demographic and Health Survey of Liberia*, Westinghouse. Washington DC, USA.

8. UNICEF (1985), *Situation Analysis of Women and Children in Liberia* (monograph), UNICEF, Monrovia, Liberia.

9. See reference 8.

10. See reference 8.

and that this was substantially at risk from the poor living conditions in the settlement. Their intuition was backed by good evidence.

IV. ENVIRONMENTAL HEALTH CONDITIONS IN WEST POINT

DEMAND FOR LAND in West Point is now such that prospective residents stake out claims on new rubbish sites as they appear, and begin building once the refuse has stabilized sufficiently to provide "foundations".

In a UNICEF and University of Liberia sponsored seminar on the "Urban Situation in Liberia in 1986", the health and education working group noted that: "The health situation of this area is hindered by the following factors: inadequate disposal of waste materials; inadequate toilet facilities; congestion resulting from overpopulation; increasing child tuberculosis;...and terrible hygienic problems as a whole".⁽⁶⁾

Data on the health status of West Point residents has rarely been collected, but child mortality (probability of death between one and five years) for Monrovia recorded by the Demographic and Health Survey of Liberia, has shown no improvement in the last two decades (from 1971 figures of 86 deaths per 1,000 live births).⁽⁷⁾ This lack of improvement may be due in part to the poor state of the Liberian economy, with effects ranging from decreased access to medical care (Liberia now has fee-for-service facilities only and the large urban hospital is run at reportedly 20 per cent capacity) to declining availability and increasing costs of basic foodstuffs. Most reports agree that the overall decline in the Liberian economy has had its most severe impact in the domestic budgets of the poor.⁽⁸⁾ In Monrovia, there are added problems for the many households whose breadwinners attempt to compete in a labour market with 59 per cent unemployment. The citizens of West Point are both poor and lack regular, secure, employment.

V. FROM LARGE TO SMALL-SCALE ENVIRONMENTAL HEALTH PROJECTS

AT THE UNICEF seminar of 1986, the resident representative of the World Bank declared that "the Bank had so far financed a US \$10 million project in Monrovia designed to improve water supply, sanitation, drainage and refuse collection".⁽⁹⁾ Yet the same seminar noted, in its visits to West Point and other slum settlements in the city, that still: "The majority of houses are zinc structures lacking facilities such as toilets and pipe-borne water. Poor electrical wiring in the houses makes them prone to constant fire outbreaks. Houses are congested without access lanes. Ventilation is very poor due to competition for building space and even during the day the insides of the rooms are dark. Roofs are rusty due to ocean spray and most of the houses lack concrete foundations".⁽¹⁰⁾

Projects to improve the site had in fact been undertaken, but most attention had been focused on the provision of capital equipment: USAID, the aid agency of the US government, had funded four toilet/shower units; water standpoints had been installed on the peninsula by the Liberian Water and Sewer Corporation and, by 1989, these totalled 25. Refuse disposal, perceived a major environmental health

problem by the seminar group of 1986, was largely ignored by both government and donor agencies. Perhaps this is partly because "recurrent" project costs indicate major long-term donor responsibility. Refuse disposal is, after all, one of the most tangibly "recurrent" of slum problems, where the capital cost of dustbins is the least of the commitments required from an agency promising improved waste disposal to a community.

However, it is not just waste disposal which requires a recurrent commitment to maintenance: in 1986, the urban seminar group noted leaking of the water standpipes in West Point and contamination of the surrounding area; by 1989, only nine of the original standpipes were functioning. The shower units, a hygienic proposal on paper, seem to have been ill-conceived from the start: the UNICEF seminar noted that the "substantial use of the units by residents was questionable due to fees (five or ten cents) and locations."⁽¹¹⁾ Put more bluntly, "at ten cents per person per admission, most people use the beach for free."⁽¹²⁾ It was this scenario that faced the West Point Development Committee in 1988.

11. See reference 8.

12. See reference 3.

VI. A RECURRENT SOLUTION TO THE RECURRENT PROBLEMS OF ENVIRONMENTAL HEALTH

SINCE 1988, THE West Point Committee, with the support of the Catholic Archdiocese of Monrovia and a Canadian based donor, have undertaken three community-led projects: a West Point Beach Sanitation Project; a refuse collection programme and the West Point Primary Health Care Community Programme. The approach has been very simple. The first step involved a baseline needs assessment aided by technical advisers who focused on the social needs of the community and worked with the committee on the development of a sanitation with education project.

The options discussed for improving conditions in West Point included: the purchase of a truck to dump the waste off site, the development of a sewer system, the building of latrines, and the contracting of a disposal firm to pick up and dispose of the waste off site. These alternatives were "due to a combination of political, economic, social and cultural factors, not deemed feasible."⁽¹³⁾ This rejection of capital-oriented projects and the ensuing change in approach was due not only to community realism and past experience of large capital projects, but to an awareness of the relatively small donor grant available for the project (20,000 Canadian dollars, or about US\$ 18,000). The size of the grant made the sustainability of any inputs to sanitation improvement a more immediate concern for the slum dwellers and the slum committee were only too aware that the burden of project maintenance would soon be on the shoulders of the community.

13. See reference 3.

West Point residents were aware also of the likely lack of long-term support from the city administration. This led them to an innovative solution to waste disposal based on utilization of their only real resource: the population of West Point itself. This involved an initial voluntary and community-wide initiative to clean up the beaches around West Point by raking, burning and burying the refuse. The drive was so successful that the slum committee drew up a budget and maintenance agreement to fund a regular clean, burn and bury programme, hiring some of the original volunteers on a full-time basis. The stabilized rubbish plots on the eastern side of the settlement were

covered with sand and chicken wire, after burning, becoming potentially (if aesthetically dubious) new house plots.

The sanitation problem seemed at first sight to be more intractable. But again, capital solutions were avoided in favour of very basic community reliant initiatives. To start with, the project organizers recognized and were responsive to community practice, which in West Point involved using the beach as the main defecation area. Initially as an experiment, pits were dug in the sand for defecation and for later infill by the workers. Much to the surprise of the project managers, the people of West Point responded well to the clearing initiative and areas previously used as defecation sites eventually became cleaner and more sanitary play areas for children. When, in May 1989, a refuse collection system was started on an income-generating basis, the community did not reject the idea of paying for waste disposal, (as they had for the fee-for-service latrine units) but acknowledged the five cent per bucket charge as an acceptable fee for continuing this now proven and realistic alternative to more formal waste management.

VII. WEST POINT PRIMARY HEALTH CARE COMMUNITY PROGRAMME

THE HEALTH PROGRAMME in West Point has been designed as an education input to complement the other project components. These can be summarized, in the words of the project, as:

- a) providing and maintaining a free and appropriate place to defecate;
- b) providing on-site garbage collection and disposal;
- c) providing basic means of vector control by burning garbage and therefore reducing food and shelter for vermin and insects."⁽¹⁴⁾

The general objective of the education component was therefore to attempt to lower the risk of disease by education in preventive strategies and techniques. Specifically this entailed: educating the community via discussion groups, household visits and education materials about the existing sanitation and hygiene alternatives and disease control; employing a community organizer to mobilize and direct the community and expand the communication network within the settlement; and assisting in the development of a school health programme.

VIII. IMPACT ANALYSIS

ANOTHER MAJOR ROLE of the education component has been the development of a community based indicator for the impact that the project might be having on community health. Under the circumstances, this indicator has become as unorthodox as the sanitation scheme. Christopher, an environmental engineer working with the West Point residents, describes this community evaluation tool as follows: "Because of the unusual dynamics of our urban situation in West Point, the conventionally recommended baseline indicators are either not possible at this time or are inappropriate...the project focus

14. See reference 3

15. See reference 3.

16. Turner, B. (editor) (1988) , *Building Community. A Third World Case Book*, Building Community Books, London, UK.

17. Satterthwaite, D. (editor) (1988), "Improving environment for child health": *Urban Examples 88/15* UNICEF, New York, USA.

18. Thomson, B. (1989), "ODA workshop on urbanization and British aid. A note on the discussion," *Cities* 6 (3): 171-173.

is on education, and basic sanitation...and to ultimately have impact on the incidence of faecal oral disease.... The baseline indicator is literally to count, daily, the total number of random defecations and the fraction of the total with "runny stomach" consistency, at each of the test sites, not in the holes. If the education programme is making an impact, this will be indicated by the decrease in the total number of random defecations and a decrease in those with "runny belly".⁽¹⁵⁾

There are many factors in the environment of West Point which could affect the incidence of diarrhoea and make it difficult for the project to claim that they alone have reduced diarrhoea in the community; for example, help from a private health facility, seasonal variation in diarrhoeal disease, and complications with other diseases which may cause stomach problems. It is unlikely that this proxy measure could help the project to definitively identify its role in the event of a fall in incidence of "runny belly". However, health evaluation tools have their value not only in their epidemiological accuracy, but in the role that positive findings may have on increasing the morale of staff and community. In this case, the tools chosen have a definite role to play in gaining community confidence in the project and in establishing good staff morale. In addition, impact analysis such as that in West Point are most useful for the advocacy gains which basic impact measurement can bring, both in educating people as to root causes of disease and in mobilizing advocacy for more health initiatives.

IX. CONCLUSIONS

SUCCESSFUL CASE STUDIES similar to this exist in many low-income communities in developing countries⁽¹⁶⁾: slum improvement initiatives thrive as pilot projects and attract applause for their innovative, participatory aims.⁽¹⁷⁾ Often, the "low-tech", community approach is born of necessity and, when the successful pilot project attracts the attention (and funds) of the larger international donors, the community-led perspective gets subverted in the need to process and disburse vast donor inputs.⁽¹⁸⁾ This project is out of the ordinary because it inverts the norm of the pilot project attracting (and sinking beneath) "big bucks": in Liberia, this small-scale community project focused on a settlement's very real need to have access to appropriate and easily maintained environmental health assistance. Surprisingly, the donor was realistic too. West Point community had already had experience with big projects and for them the logical result was a new initiative rooted in the economic and social reality of Monrovia and West Point's place in it. There is not a long-term solution to the environmental health problems of West Point families, but it has improved quality of life and community morale for a large number of urban citizens who otherwise would remain ignored and largely unserved by any facilities.

"Projects" are not the solution to the existence of slums in developing countries: and few would suggest that they are. But in reality, the "project" approach is very often the only assistance towards improved environmental health conditions that slum dwellers will come across. Almost by definition, slum dwellers are politically low priority for services from their local government and even when they form up to 60 per cent of a city population, slum peoples are often too factionalized to realize their potential political strength in demanding improvements (this is probably true even in Latin America and India where individual communities are often strong lobbyists for rights). Given

19. Skinner, R., J.L. Taylor and E.A. Wegelin (editors) (1987), *Shelter Upgrading for the Urban Poor: Evaluation of Third World Experience*, Island Publishing House Inc. Manila, Philippines.

20. For example, see UNCHS (1987), *Case Study of Sites and Services Schemes in Kenya. Lessons from Dandora and Thika Habitat*, Nairobi, Kenya.

this larger urban context, "project" managers need to juggle carefully with the various elements of urban project planning for the poor. There needs to be a balance in planning between "users" (slum dwellers) and the different "suppliers". Managers have to recognize and acknowledge the slum residents as ultimate users and maintainers of facilities and inputs (often unsupported by local government after a project ends).⁽¹⁹⁾ Given the current leanings of large donors towards increasing the financial and other burdens of post-project responsibility to individual communities⁽²⁰⁾ (often euphemistically termed and measured as a form of "community participation"), donors and project managers must be more receptive to ideas which will ensure the sustainability of project achievements. The replicability of the West Point initiative lies in the community approach of the project, which was focused from the outset on identifying self-reliant (if interim) measures for community health. And perhaps applause is due to the donor for sticking throughout to community planning which recognized that the long-term "users" of any input should be the long-term planners.

Acknowledgements

The substance of this paper is based on the experiences and descriptions of the workers and community members of the West Point Community Development Project in Monrovia as it stood in December 1989. Most credit for this paper is due to this team of workers and to Ms Michelle Christopher, an environmental health engineer who was working in West Point at that time.