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Improving the Effectiveness of Urban Projects

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Earlier chapters have reviewed the urban policy options that are available to developing countries. A variety of policies intended to alleviate urban problems and improve the functioning of cities have been used or proposed for use by developing countries. The results to date have been mixed and controversial, and there is an emerging consensus that better evaluation of the actual and possible outcomes of urban programs would be helpful to policymakers who must choose between policies. This chapter examines whether rigorous evaluation of projects can assist in improving the efficiency and effectiveness of future urban policymaking and in formulating and implementing projects. Although much of the chapter deals with specific shelter projects financed by the World Bank, the lessons drawn from such cases are likely to apply to policymaking as a whole.

In 1969 the World Bank began a lending program that was explicitly designed to respond to the compounding problems of cities in developing countries. The emphasis was on ameliorating the housing problems that faced the burgeoning low-income populations in the cities by accelerating the rate of increase in the supply of basic shelter and by facilitating access to the expanded supply by the lowest income groups. The strategy developed was to provide secure tenure and basic services in new sites and services areas and in slum and squatter areas designated for upgrading and to rely on the participants to complete or improve their houses through progressive development, with a modicum of additional assistance.[1] The first such project was approved in June 1972. Since then a sizable lending program has developed and has accounted for over $2 billion in loans for sixty-two projects through 1981.

An early feature of this unprecedented endeavor was a pilot program to rigorously evaluate selected early projects. Preparation for the evaluation began with approval of the first project in 1972, but it was mid-1975 before enough projects were ready for implementation. The housing program was launched with the assistance of the International Development Research Centre (IDRC) of Canada. Programs in Senegal (the first project), El Salvador, the Philippines, and Zambia were selected for study, and annual conferences were held to discuss the findings. The concluding conference for this phase of the work, held in November 1980 in Washington, D.C., was attended by project managers and researchers from the countries involved and from other interested countries. Subsequently the evaluators' attention has turned to the publication and dissemination of the programs' more important results and to evaluations of projects in other countries.

This chapter argues that evaluation programs can do much to guide public sector spending (or lending) programs. This was not the primary aim of this evaluation program at its outset; then the emphasis was on measuring a broad range of expected impacts on the participant populations.[2] As the program progressed, however, and initial experiences and evaluation findings were digested, the focus narrowed to issues that were seen to be both significant and amenable to rigorous evaluation or research. As a consequence, although the study of impacts has remained a central concern, it has been joined by the assessment of the effectiveness of programs and projects and of certain of their components.

Ex post assessment of experience makes clear that there can be a synergism of activities in a jointly programmed sequence of projects. These activities are an evaluation component, policy reviews at various critical

junctures, and associated research. As has happened in this program, project experience, evaluation findings, and research results all inform each stage of project design and each policy review. At the same time, project and policy requirements, coupled with evaluation research experience, can help to adjust the designs of evaluation and research programs to maintain responsiveness to these operational needs. The following matrix provides a helpful way of viewing this interaction.

	Activity	
	Continuous	*Periodic*
Action	Project	Policy
Study	Evaluation	Research

The general background against which effectiveness is reviewed in this chapter is one of success. The progressive development model, exemplified by the sites and services and area upgrading projects, has demonstrated its validity in a broad range of circumstances, and the recorded impacts on the participating populations and their housing conditions have been in the expected directions and of significant magnitude. Self-help construction methods have proved relatively efficient, and the impacts of projects on the housing stock have been generally greater than anticipated. The projects have been affordable and generally accessible for the target populations. Although it is still too early for some of the developmental results to have been recorded, those measurements which have been completed indicate that the projects' impacts on the socioeconomic conditions of participants have been in the directions expected. And, notably, the projects have not had negative impacts on expenditures for food and other basic necessities (see Bamberger, González-Polio, and Sae-Hau 1982; Bamberger, Sanyal, and Valverde 1982; Keare and Jiménez 1983; Keare and Parris 1982).

Notwithstanding this general record of success, the projects have encountered some problems and produced some unexpected results, some of which are detailed in the following section. An analysis of the projects' successes and shortcomings supports recommendations, advanced below, that future projects endeavor to push standards and costs still lower, include explicit provisions and opportunities for rental arrangements, and incorporate credit provisions that are more nearly tailored to the needs of the targeted families. Furthermore, it is observed that these objectives will be more easily pursued and also more effective if a rigorous and relentless approach is taken to improving cost recovery performance in the programs. The final section, "The Contributions of Evaluation," provides some examples of how operationally useful knowledge and understanding have been developed more rapidly, completely, and convincingly through the use of evaluation and associated research than could have occurred through direct assessment of project experience alone. It concludes with some observations on how the efficiency of interaction between evaluation and research on the one hand and project design and policy formulation on the other can be improved.

Project Efficiency and Effectiveness

Despite differences in the goals and operational procedures of the four shelter programs studied, the programs are comparable enough to warrant preliminary investigation of their efficiency and effectiveness according to a single set of criteria. Eight project aspects appear to be of particular financial, economic, and social importance in all four cases: project planning and design, selection of project beneficiaries, construction methods, materials loan programs, housing completion and occupancy, maintenance of housing and infrastructure, cost recovery, and community participation. Criteria that appear to be useful in gauging the efficiency of these components include speed of implementation, cost, quality of housing or services, accessibility by target populations, replicability, and flexibility of implementation.

There are tradeoffs among these evaluative criteria. Higher-quality housing may be more costly to construct and less affordable for low-income target groups. Greater attention to selection procedures may increase target group accessibility but raise the costs of identifying appropriate families. The sometimes conflicting objectives have to be reconciled according to a crude relative weighting of each, as determined by project management and other policymakers, and no precise model for the assessment is yet available. The discussion below briefly summarizes the constraints and options involved in applying the criteria to each project aspect and reports on selected initial results from the four projects.

Project Planning and Design

Speed of implementation can affect the cost of both house construction and provision of services. If progressive development is too slow administrative costs per plot will rise and intended benefits will be delayed and possibly reduced, but pressure to construct houses too rapidly, without appropriate credit, can result in affordability problems for families. High, rigidly enforced design standards for quality housing are inexorably linked to higher costs, may contribute to delays, and may limit participation by low-income families and restrict the flexibility of households' responses. Reductions in capi-

tal costs, however, may produce only illusory gains because they are offset (or more than offset) by increases in operating and maintenance costs. Although costs can sometimes be reduced by the use of domestic rather than imported materials, families may prefer to build with more expensive materials and recoup the additional outlays through higher returns from renting part of the space and from eventual resale.

There is no evidence that design standards in the projects have been intolerably high. Studies of turnover do not, for example, reveal a higher than average incidence of departure from project sites among the poorer participants.[3] Two facts, however, seem clear: entry costs can be reduced so as to facilitate accessibility for poorer households without adverse consequences for physical results, and, even if costs remain the same, changes can be made in the mix of components and services offered that would make them more desirable. In particular, the evaluation program and other studies have shown that the projects under review have placed somewhat too high a premium on service levels and may have overlooked opportunities to facilitate increases in housing space—an attribute that has turned out to be more highly valued than was anticipated in the initial project designs. Although families in El Salvador have on the whole been satisfied with the design features of project housing, demand studies have revealed that they also view favorably the larger lot sizes (and lower service levels) of *colonias ilegales* (unauthorized settlements) if this option is available in a particular city.[4] Similarly, in the Philippines, where project lot sizes in the Tondo area of Manila have been constricted by the existing high densities, families have responded, following the reblocking process, by building additional stories to increase living space.[5] Improved services, especially toilet facilities, have been less highly valued by upgrading families than had been anticipated by project designers.

In Zambia the plot sizes offered have been large enough to satisfy families, but apparently even larger lots would have been preferred. A partial explanation is that families have discovered that they can rent out space despite project prohibitions. The outcome, however, is biased by the fact that Zambian participants are not charged for land—which has potentially serious consequences both for project costs and replicability and for the allocation of a scarce factor of production, land. The primitive status of the building materials industry and the excess demand for good housing in Zambia help explain Zambian families' preferences for constructing houses of imported rather than domestic materials: they incur added costs for higher quality and recoup those costs by renting out space. In these circumstances efforts to encourage participants to use local materials (for example, by producing their own soil-cement blocks), thereby reducing costs and potentially increasing long-term efficiency, have so far lacked appeal. In Senegal a similar desire for additional space rather than highly serviced facilities has been demonstrated by the choices of the low-income control groups in Guediawaye and Grand Yoff. The relatively expensive standard designs were presented to the project families in such a way that the costs, in time and money, of obtaining approval for simpler designs were perceived to be substantial. This belief may well have led to families' accepting housing standards that were higher than desired.

These findings point to the advisability of providing a wider range of building options to participant families. Households appear to demand substantially different combinations of plot size, contractor construction, and service facilities; they also wish to have the option of adding to or further upgrading their homes and of renting out space. Despite the counterarguments of some national housing planners, it appears that scaled-down housing standards are a precondition for affordable (but still desirable) housing for low-income populations. Rental arrangements, too, appear to be both desirable and feasible for target populations, although strict enforcement of cost recovery is mandatory to avoid the creation of undue subsidy of rentier groups within the projects. These issues will be treated below.

Selection of Project Beneficiaries

The selection procedure also affects the efficiency of sites and services programs.[6] Project managers are typically concerned about both the upper and the lower income bounds for selections from the applicant pool. Care must be taken to avoid including in the project too many high-income families, some of whom may attempt to falsify income statistics to participate, but it is also necessary to ensure that low-income participants will be able to afford project costs. The speed of the selection process itself involves tradeoffs. If the screening program takes too long, households may become dissatisfied and withdraw from consideration; if it is carried out too rapidly, errors may occur.

Restricted definitions of income may also lead to biased selection standards. If selection is based only on earned income rather than on total income from all sources, projects may exclude large numbers of households which, by virtue of the combined resources within their extended families, can afford the programs. Furthermore, the criterion will be biased against female-headed households, which rely more on transfer payments from kin than do male-headed households. It must be noted, however, that verification of the true

incomes of all applicants is a costly procedure. Statistical sampling procedures will probably have to be used and the inherent errors accepted.

The evaluation studies have not discovered seriously anomalous income distributions in any of the four projects. An acceptable range of income groups appears to have been incorporated into the programs.[7] Some problems with underreporting of incomes arose in the Dakar project, but a more general finding has been that some families, particularly female-headed households and those employed in the informal sector, initially suffered from a measure of unintended discrimination in the selection stage, owing to problems in verifying income from nonformal sources.[8] Several of the El Salvador subprojects have gone so far as to include higher proportions of female-headed families than exist in the population at large. All four country projects have included families with a greater range of incomes (and more diverse sources of those incomes) than had been foreseen. Consequently, future programming efforts may well have to find a way to assess both household and extrahousehold incomes and characteristics to determine an appropriate range of income bounds for project participation, rather than necessarily modifying the selection processes themselves.

The evaluations have demonstrated that transfers from the extended family and other kin and nonkin networks account for an important and stable share of participant families' incomes. In the sample of low-income households in Santa Ana, El Salvador, transfers constituted 66 percent of the incomes of 58 percent of the families in the lowest income decile; for the next lowest decile the transfers were 25 percent of the income of 48 percent of the families. In the Tondo sample transfers accounted for 54 percent of the incomes of 43 percent of the families in the lowest third of the income distribution. Furthermore, econometric analyses indicate that transfer incomes have a contractual character and are devoted more than proportionately to expenditures which can be described as meeting basic needs. Participation in projects (which confers investment opportunities) induces additional transfers (Kaufmann 1982).

Construction Methods

The projects have placed substantial premiums on identifying construction methods that reduce costs and contribute to efficient implementation. Among the cost-efficient methods are project-provided, contractor-built housing; construction through mutual help; self-help in which families hire a contractor; self-help in which families themselves do the contracting and hire and supervise individual workers; and self-help in which families build their homes themselves. Each method involves different construction rates, costs, and implications for housing quality, replicability, and accessibility, and the tradeoffs involved are considerable. The mutual help method may be slower (although not necessarily less expensive) than certain self-help methods, which may in turn be slower (but cheaper) than contractor construction. The scheduled timing for mutual help methods may either attract or discourage families with different preferences and varying formal and informal work schedules; scheduling is a serious issue. Use of skilled builders can raise project costs in the short run, but their participation in project design and execution may also contribute to replicable plans which scale down costs, including maintenance costs, over time.

Family-based construction methods using progressive development have proved viable in sites and services and upgrading projects. It has been estimated that certain families in El Salvador have saved up to 30 percent of costs by building their own houses rather than hiring contractors, and these houses have been judged to be of a quality comparable to those constructed by skilled builders. Combinations of self-help and mutual help can also produce housing of acceptable quality at costs similar to or lower than those charged by contractors. Yet such methods can absorb great amounts of supervision and elapsed time. In El Salvador the mutual help phase of the first projects, although it produced good results, lasted more than forty weeks, since work was carried out only on weekends. The original design also underestimated the opportunity costs of labor in general, and it was found that skilled workers and other small businessmen, in particular, could have been much more profitably employed elsewhere during these work periods.[9] Furthermore, households headed by single adults and especially by females typically found participation both undesirable and difficult, owing to several constraints on the flexibility of their time. Sweat equity does not appear to have been available for own construction in the relatively abundant quantities assumed, and as many as 51 percent of the households in the Santa Ana and Sonsonate projects used only hired labor to bring their core housing up to habitable levels. (See table 14-1 for a comparison of housing construction methods in El Salvador.)

These findings imply that market solutions for housing construction, such as seeking income transfers, hiring labor, and balancing accounts through the household's own greater participation in the labor force and rental of part of the structure, ought to be considered in the estimation of housing costs and other aspects of project design in future shelter programs. Pure self-

Table 14-1. *Housing Construction Methods in El Salvador: Santa Ana and Sonsonate*

Item	Hired labor only	Unpaid family labor only[a]	Hired and unpaid family labor	All options
Percentage of participants	51	27	21	100
Average number of person-days of hired labor	46.0	—	33.2	42.4
Average weekly wage income (colones)	124.0	120.0	155.0	130.0
Average number of household members with construction experience	0.03	0.41	0.12	0.16
Average number of person-days of unpaid labor	—	44.3	45.0	44.6
Average weekly nonwage income (colones)	14.0	9.0	6.0	10.8

— Not applicable.

Note: Figures may not add to totals because of rounding.

a. Regression analysis indicates that wage rate and proxy variables (such as technical experience, number of adults ages 17 to 60, and the male-female mix within a household) best measure a household's ability to build its own dwelling. There is also some evidence that households that use self-help have lower elasticities of housing demand than others.

Source: Data from Fundación Salvadoreña de Desarrollo y Vivienda Mínima.

help, it seems, should be envisioned as only one of a set of diverse methods that can be employed for efficient housing construction and consolidation. As the El Salvador data demonstrate, the amounts of self-construction undertaken will depend, for each household, on the productivity and the opportunity costs of the family members who engage in the associated activities and hence, on the level and sources of household income and the family members' construction skills, among other factors.

Materials Loan Programs

In the projects under consideration, loans for housing construction were limited to credits for materials. Efficiency evaluations must thus gauge whether the materials purchased have been appropriate and affordable for housing consolidation and have been distributed speedily enough to participants, and whether other forms of housing loans might have been advisable. The credits have frequently been tied to purchase of materials from project stores. Although such approaches are designed to compensate for supply failures and to capture for participants the savings inherent in bulk purchases, newly created project stores may have high administrative costs, encourage overly high building standards, and fail to recommend local materials which, though acceptable for use, do not fall under the stores' control. Although sheer mechanical replicability may appear to be facilitated through this relatively simple tied credit option, the technique can be compromised if the materials are too costly or too difficult to acquire and distribute.

In Zambia problems in stocking on-site stores led to considerable delays in distributing materials, and families queued for as many as twenty hours a week to receive items. Thefts of materials also occurred.

Restriction of purchases of materials to project stores may have compelled families to buy higher-quality supplies than necessary or desired. It appears that in the El Pepito and San José del Pino projects in El Salvador materials could have been purchased directly at wholesale prices, thus lessening or obliterating the expected cost-reducing advantages of the stores' bulk purchases.

In the Philippines the project stores did not stock the cement, hollow blocks, or steel bars most desired by households. Tondo dwellers, on the whole, appear to have found cheaper (but acceptable) materials elsewhere, with the Housing Materials Loans Program (HMLP) providing only 25 percent of beneficiaries with construction materials.

The credit programs themselves have been deficient in certain respects. In the Philippines, Senegal, and Zambia, for example, the maximum sizes of loans available were insufficient to cover the requirements of many households that sought credit to finance construction. Total funds have sometimes been exhausted before all requests have been met.[10] In the face of grossly inadequate information on the demand for credit, it is understandable that project designers were loath to encourage families' overextending themselves financially and

sought to avoid this outcome by restricting both the size of individual loans and the total funds available. It appears, however, that these restrictions had undesirable effects on some participants.[11]

Notwithstanding these difficulties, studies to date have concluded that credit programs have been useful and that families should simply be permitted greater flexibility in seeking housing materials in the market (except, perhaps, in countries such as Zambia where materials are in acutely short supply). The empirical fact that project families hire labor for a substantial proportion of housing construction argues further for consideration of more general lending, where appropriate, that would cover the costs of labor, particularly skilled building help, as well as that of materials. Some scholars contend, moreover, that the substitutability of labor for materials in housing construction may be limited, so that tying credit to materials generally may pose constraints which are only slightly less severe than tying to materials from specific stores.[12]

Little evidence exists as yet in the economic, financial, or even sociological literature which would offer guidance on the optimum forms and amounts of credit. It is evident that research into both demand for credit and the responses of credit markets is a prime necessity. Studies now under way in the World Bank stress investigation of informal credit markets, particularly their linkages with household expenditures for basic needs, and this emphasis should enable the research to contribute to improvements in the design of urban shelter projects.

Housing Completion and Occupancy

Occupancy of plots in sites and services projects is another factor to be assessed in determining the efficiency of project implementation. Unless sites are occupied relatively rapidly, costs can escalate through added interest incurred during construction, through the real effects of inflation, and through the expense for families of maintaining one residence while another is being built. Arguments for replicability are thus likely to be vitiated by slow inhabitation of project areas, since construction delays may cause affordability problems for poorer families and induce project managers to include more high-income households than originally desired to achieve full occupancy within a reasonable period.

To date, land acquisition and the installation of basic services have proved to be the most serious hindrances to speedy project implementation in the early (infrastructure) stages. Whether because of difficulties in alienating public land, as in Zambia, or in finding affordable and accessible terrain for lots, as in El Salvador, project managers have had to struggle literally for years to obtain land entitlement rights. These delays, and others outside project control, have exacerbated the already difficult problems of coordination with other agencies responsible for water, lighting, and other basic services. The National Housing Authority in the Philippines is obliged to negotiate with no fewer than eleven other agencies to deliver inputs in a mutually complementary fashion.

Delays in the installation and effective functioning of services may also delay house consolidation and plot occupancy.[13] Families in turn are confronted with deciding when, how, and in what sequence to construct the house and move to the plot. If they can move to the plot immediately and commence construction, there will be no problem for the individual family.[14] Several factors may, however, delay the move and force families into a situation in which they are simultaneously paying rent on their current residence and charges on their new plot. The two principal such factors are lack of services and the absence of a habitable structure on the site. Others are distance of the new site from the old (and from the workplace) and inadequate credit.[15] World Bank project designers responded quickly to this situation by adding a measure of core construction to most projects. Doubtless this method is one way of effecting earlier occupancy and avoiding certain costs, but it also adds, sometimes substantially, to direct costs and is generally a less flexible option. An urgent need of the lending program is to evaluate the tradeoffs between this and more flexible approaches which may be sustained by more innovative credit mechanisms.

Maintenance of Housing and Infrastructure

Maintenance of infrastructure facilities and housing must also be designed and managed efficiently. Because these project features are often the responsibility of overburdened and underfunded local government agencies, there is a potential problem of inadequate maintenance. A related issue is the nature of maintenance costs: if these costs are too high, whether because of low capital investment or poor design, the benefits of low-cost housing can be rather quickly dissipated; if design standards are kept unreasonably low and do not facilitate maintenance, project facilities will decline in quality. Though it is not entirely clear how the assignment of responsibility for maintenance might affect access to projects for certain groups (such as higher-risk households with less steady incomes), it is apparent that inadequate planning for maintenance can negatively affect government decisions regarding replicability.

Because the evaluated projects have been installed for only two years or less, definitive statements on project maintenance cannot be offered. Yet problems with gar-

bage collection have already arisen in the Lusaka project. At first view the cause appeared to be difficulties in servicing the garbage trucks and the resulting deterioration of vehicles, which led to dissatisfaction with the trash collection services and negatively affected cost repayments by families. Further investigation showed that families were not totally satisfied with the services even when they were working—they wanted the services brought closer to their houses. These doubts led to other questions about the capacities of internal roads, and hence about overall costs and charges. Project experience and evaluation have verified that these various features—design, maintenance, cost recovery, and community participation—are inextricably related and, although it is difficult, better means of dealing with them simultaneously must be sought.[16] Because nearly all project services will require maintenance, planners will have to take additional steps in the future to ensure that both cities and their inhabitants are financially and institutionally prepared to continue maintaining facilities over time, especially in the light of the cost recovery problems already encountered.

Cost Recovery

Given the desirable scope and scale of urban shelter programs, cost recovery has since the inception of these programs been deemed a crucial feature of project design because inability to collect payments would doubtless prejudice replicability. Delays or dissatisfaction with project services can make cost recovery more difficult, and failure to recoup payments may in turn raise the costs of the project for executing agencies and for those families in the program who do pay for services. Government reluctance to make defaulters pay may be a form of disguised subsidy to participants. Such a tactic may permit lower-income families to live in housing projects they might otherwise be unable to afford, but that has not been the inevitable result. Subsidized programs typically have severely limited supply capacities, and in situations in which output is artifically restricted, higher-income families have proved adept in capturing the rationed benefits. In any case, the costs will eventually have to be met, either directly or indirectly, by others. Because the causes of default are complex—involving affordability concerns, the adequacy of administrative machinery, and the roles of political pressure groups—it is difficult to isolate the contributions of individual factors to cost recovery problems.

Serious cost recovery problems have arisen in the Lusaka program: more than 50 percent of families in some upgrading projects are in arrears, and some households do not appear to have paid anything. In this instance it has been possible to clarify causes. The initial assumption was that affordability problems must have contributed to the result, but evaluation studies have established that repayment performance has not varied with income. The principal factor in the slow rate of collections has been the absence of political will on the part of the responsible political party to seek repayments. The party did little to prompt communities to repay development costs to the Lusaka City Council (LCC), the project's administrative agency. The LCC has now taken steps to recover costs more systematically, but efforts are hindered by the absence of an efficient recordkeeping system to maintain up-to-date information on defaulters and amounts owed and by the lack of a flexible mechanism for collecting payments. The underlying problem is the long-standing tradition of subsidized housing in Zambia, the potentially harmful effect of which was inadequately evaluated during project design and appraisal. Families, moreover, have not been well informed about repayment schedules or about the purposes for which the money collected was to be used.[17]

Collections were also slow to develop in the early projects in the Philippines. The initial investigation found that the poor early performance did not stem from inability or unwillingness to pay or from poor collection procedures. Rather, the cost recovery objective was insufficiently integrated into project planning, implementation, and monitoring procedures. Thus, project activities have been articulated not in a critical path framework but rather in a serial framework. Typically, when physical implementation has been completed and collections could ostensibly begin, some neglected feature has delayed collection: titling has not been completed (or even started), specific cost recovery procedures (which involve negotiations with local governments) have not been worked out, the participants have not been properly informed of their obligations, and so on. Once the cost recovery objective is cast in an appropriate management framework, it will be necessary to use available management information to monitor progress toward this objective, as with all others.

The El Salvador program offers a strong counterexample. Because of its small size and its nonprofit status, which requires it to achieve cost recovery to remain in operation, the Fundación Salvadoreña de Desarrollo y Vivienda Mínima (FSDVM) has achieved an excellent repayment record for its shelter program. Through material help and collaboration on important community matters families are brought to understand that repayments are necessary to the survival of project facilities. The FSDVM uses effectively a phalanx of incentives and penalties to achieve cost recovery. These have included support to community organizations in return for their assistance in the collection of payments, careful screening procedures to select participants able to pay project

fees, and visits by lawyers to families who have fallen more than three months behind in their payments to press them to pay. Eviction, although seldom used to date, is an option which the Fundación will not hesitate to use if necessary.

These experiences reveal the usefulness of designing projects in a local public finance context, where the ability to operate and maintain infrastructure and services can be directly related to the resulting benefits as well as to collections or cost recovery. From the outset of a project, collection mechanisms ought to be designed with community participation in mind, and with regular, relatively convenient payment schedules that are thoroughly explained. Participants must be made aware of the direct relation between installment payments and loan repayments on the one hand and goods and services received on the other, as well as what the consequences of default will be, both for themselves and for the project as a whole. Methods for improving cost recovery performance which have been developed in other Bank-financed projects have included discounts for early repayment and the withholding of materials or house consolidation loans from families that default on lot installments. Collection methods based on property values have been used and could be extended. In sum, whereas affordable projects and workable cost recovery methods can be designed without undue difficulty, the real problems are in implementation. The requirements—in addition to political will—are better-integrated planning and considerably more attention during implementation.

Community Participation

Finally, community participation in project implementation, and particularly in design, can have decided effects on efficient achievement of objectives, including maintenance and cost recovery objectives. Although popular support and consultation are indispensable for eliminating resistance to project interventions, lengthy discussion of procedures or training of project *promotores* in organizational skills, for example, can delay implementation schedules substantially. In some instances project acceptability can be improved and costs reduced if community groups accept direct responsibility for the operation and maintenance of facilities, but devising new administrative structures and procedures for such purposes can be costly. Effective community participation is itself a goal of certain projects—for example those of the FSDVM in El Salvador—and hence some project managers may be willing to invest more resources in developing community institutions than are others who are more committed merely to attaining physical goals.

The evaluated projects have witnessed both the positive and negative effects of active community involvement and noninvolvement in project implementation. Because of its commitment to stimulating and using community participation in achieving social goals, the FSDVM in El Salvador has compiled a generally noteworthy record of fostering feelings of responsibility for project facilities and services and for collections. Required mutual help construction has also engendered collective action toward social aims. Yet there have been several cases in which groups have organized against the FSDVM and refused to make payments until basic services such as water were provided.[18] Community organizations, it seems, cannot be expected to be simply passive or neutral variables in project implementation, for they can act as stimuli or as deterrents to reaching objectives, depending on the concordance of popular and program goals.

The Lusaka project, too, has used community involvement to its advantage in some cases and has failed to employ it sufficiently in others. Through consultation with groups in upgrading areas and those scheduled to be moved to overspill areas, major disturbances were avoided. This accomplishment appears to have been an important one, in that squatter areas had traditionally been centers of unrest. Community groups, for example, were organized at the planning stage into road planning committees, which made recommendations for modifications in road layouts (and the resulting dislocations of certain families) that were acceptable to all parties. The committees have continued to be instrumental in other decisionmaking functions that affect community well-being. Other components, including mutual help, have been less successful. Although community resources were successfully applied to the provision of clinics, other efforts, such as one to provide multipurpose community centers, have not engendered popular support.

The Philippines evaluation team has noted that a marked passivity characterizes group meetings where project plans are discussed. Tondo dwellers seem regularly to follow *barangay* (community) leadership in declaring preferences for particular services or procedures, even when these involve significant physical disruptions in reblocking their homes. Although this form of hierarchical organization, which involves consultation with *barangay* leadership and community groups, appears to have led, as in Zambia, to the circumvention of major social disruptions during the reblocking process, the evaluation team has recommended that more comprehensive information campaigns be conducted before and during relocation so that households understand as completely as possible what options are open to them. The options may include actions which do not necessar-

ily fit the preferences of *barangay* leaders, but inclusion of such choices may lead to a broader-based community participation than the estimable grass-roots movement already achieved.

Some Implications for Project Design and Policy Formulation

The analysis of the eight project effectiveness components presented in the preceding section does not begin to exhaust the ways in which shelter programs might be evaluated. Strictly comparable data have not been generated in every instance, given the wide variance in procedures and in supply and demand features in the four country projects. This framework for gauging project efficiency nevertheless constitutes a useful tool for beginning to assess crossnationally the options and constraints in housing programs which attempt to serve the needs of low-income and lower-middle-income urban populations. In this section some of the lessons for designing projects and for addressing wider policy issues are discussed.

Market Forces and Flexibility in Design

A general feature of the findings is that market forces among the poor who seek shelter in rapidly urbanizing developing countries are stronger and more easily released from constraints than had been anticipated. Within the limits determined by household economies, families exhibit varying behavior in housing markets (as is generally corroborated by evidence from other projects). The planning and execution of the progressive development process, and the size, quality, and use of project houses, will vary enormously as well.

In the realm of project design, it has been shown that substantial opportunity costs render it uneconomic for large proportions of target populations to utilize family labor in constructing or improving their houses. It follows that families should not be forced to use their own labor. Nevertheless, the initial decision to encourage use of own labor in self-help processes was a wise one. This conclusion is confirmed by the quality of houses constructed using family labor in whole or in part and by the efficiency of the process for families with relatively low opportunity costs and relatively high levels of construction skills. Similarly, the findings with respect to materials stores, types of materials used, and the amounts of rental accommodations constructed indicate that families make a wide variety of choices, again usually for good reasons. The proper interpretation of these results is that a broad range of solutions should be encouraged, or at least allowed.

In the realm of policy, project experience and evaluation findings confirm that housing markets are quite easily unfettered, and that once they are unfettered, they respond vigorously. This argues for a strategy that makes it possible for more families to participate and that does not seek to constrain the development they choose to undertake. The first consideration implies making tenure, basic services, and housebuilding resources more easily available to lower-income families; affordability and cost recovery findings indicate that this is a risk that can be run. The second consideration implies the removal of restrictions (such as those on rentals) that act, directly or indirectly, to suppress construction.

The range of preferences implied by the above examples argues unambiguously for housing solutions that permit substantial flexibility to households. The optimal degree of flexibility is not known and may be undeterminable, but evaluation findings suggest that project planners should leave more to the market and resist temptations to build too many components into projects. Rather, they should try to be selective and should think of projects as series of interventions that may eventually prompt the system to produce all the desirable sets of complementary components and services.[19]

In this view, then, projects should be kept simple—designed for realistic results and speedy implementation.[20] Key elements such as appropriate locations, reasonably secure tenure, and efficient credit mechanisms must be in place, but beyond these the set of needed components may vary greatly. Far from denying the complexity of urban problems, this approach requires careful and complex analysis to relate objectives to resources and constraints, which leads to more accurate choices about what to do first in a given set of circumstances. Along with continually improving provisions for maintenance, cost recovery, and community participation, this approach may make possible more rapid and more easily replicable improvements in housing for more people.

Affordability and Project Design

Although affordability was not an explicit objective of early projects, evaluation experience has shown that housing can be produced that is affordable for households in the lowest quintile of most urban income distributions. If social equity objectives as well as efficiency goals are to be met as directly and as rapidly as is desirable, efforts over 1985–95 will have to be more concerted than those already successfully carried out. Though each particular set of circumstances dictates ways in which performance may be improved, evaluation findings suggest four principal ways of improving deliv-

ery of project benefits to the poorest urban dwellers: revise standards, and thus entry costs, to lower levels; increase the opportunities for rental arrangements in projects; tailor credit arrangements to the revealed needs of a population which may have substantial access to informal transfers; and insist on excellent cost recovery performance in projects so designed. Urban project designers in the World Bank have been making considerable progress along these lines in recent years.

The first two approaches to broadening the benefits of shelter projects are not necessarily complementary and need to be handled with sensitivity. Concerning standards, there are two crucial issues: the land density of settlement, and service levels.[21] The first issue is closely tied to plot size, although the two concepts are not synonymous. Given the scarcity of urban land, particularly in the very large metropolitan areas, urban projects should have densities that are as high as possible, consistent with the economic demands of the target populations and with reasonable health standards. Other things being equal, this strategy suggests small plot sizes—smaller, in general, than those considered during 1971–75, when the projects evaluated in this program were being devised. This does not imply less living space per individual or per household, however. Plot size and living area will vary greatly with the amount of vertical construction, which in turn will be determined by a number of considerations, including land price, rental market conditions, the availability of credit, and the incremental costs of constructing additional stories. The relevant factors, and thus the feasibility, profitability, and amount of vertical building, vary from one locale to another.

The early projects evaluated under the present program did nothing to encourage multistory construction, primarily because two of the four projects were in African cities of modest size where populations and land prices were not yet at levels that would force consideration of vertical building. In addition, multistory designs were explicitly avoided to minimize risks in the early pilot projects. There is now considerable evidence, however, that builders in the informal sector are capable of raising structures to substantial heights and will do so if appropriate incentives are present. The task of future projects will be to see that the incentives are there and particularly that potential biases against multistory construction are avoided.[22]

Analyses of available data on the first upgraded areas to be reblocked within the Tondo area in Manila show that adjustments in vertical structure took place in short order. The average lot size was reduced by 12 percent (from 65.3 to 57.6 square meters), but households increased the average constructed area by 34 percent (from 40.2 to 54 square meters) within the first three months after reblocking. To a large degree this was accomplished by increasing the amount of vertical building: a quarter of the households (and half of those that previously occupied single-story dwellings) added a second story for the first time, and the average number of floors increased from 1.49 to 1.66. Projections on the basis of early trends suggest that this figure may by now have reached about 1.85.

The most up-to-date information on a large urban housing market is for Cairo,[23] where the character of the housing market has been changing rapidly as a result of increasing demand that impinges on an inelastic supply of land in a large metropolitan area. A substantial share of the increase in housing has consistently been accounted for by the informal sector.[24] The expansion has occurred both by extension of the urbanized area and by the addition of stories to existing buildings. As a result, informal housing that is initially constructed with one or two stories eventually reaches two to five stories, and the average number of floors per building has increased from 2.09 in 1976 to 2.45 in 1981. The economics of this process are reasonably clear. The cost of a medium-size informal lot in a medium-price location in Cairo is now approximately two and a half to three times the cost of constructing a 50-square-meter dwelling. Thus, conservatively speaking, unit costs per square meter can be reduced by as much as a third by adding one story and by nearly half by adding two. Furthermore, the direct costs of an additional story will be no more than 75 percent of the costs of building a new single-story house on the minimum-size lot at the periphery.[25]

Evaluation results indicate that a key objective of project design should be to bring (or keep) the unit price and quantity of land within affordable limits for the target population so that the poor are not overextended by participation or the affluent unduly encouraged to participate.[26] Fortunately, there are signs that significant improvements in practices of the recent past are possible. That there is a sound basis for such a favorable outlook is confirmed by project experience in El Salvador, where both the programs of the FSDVM and the use of evaluation are of long standing.

Advances have been essentially of two kinds: improvements in layout, which have increased the proportion of residential area to total area, and stimulation of two-story construction. Improvements in layouts were achieved principally by significantly reducing the proportion of land assigned to vehicular traffic and parking (through restriction of these functions to peripheral areas) and by grouping houses around miniparks or green areas which provide access to the interior plots and serve as semiprivate recreation areas. Families thus trade off some private area for shared use of areas. The

success of these design choices is illustrated by the fact that residential area as a percentage of total area has increased from an average of about 50 percent in the earliest projects in El Salvador to 70–80 percent in the most recent ones.[27]

At the same time, there has been a steady increase in El Salvador in the number of units per hectare of residential area. This figure has slowly increased as plot sizes have been reduced. The greatest increase in unit densities has come in an experimental project (Conacaste) in San Salvador, where a two-story design for some of the units has permitted the construction of 140 units per hectare, as against an average of 80–95 units in other recent projects. The cost-effectiveness of this result appears quite compelling for large urban centers where land prices are sufficiently high to encourage the substitution of capital (construction) for land. This example implies that a two-story unit (25 square meters of constructed area on a 32-square-meter lot) costs about 15 percent less than a 25-square-meter single-story house on a 60-square-meter lot. Furthermore, rising land prices are inexorably shifting the balance further in favor of multistory construction and making such construction economical over more of the urban landscape. Of course, Salvadorean cities are not yet large enough to provoke the strong incentives for vertical construction evident in the examples for very large cities such as Cairo and Manila.

Two other design refinements which can be used to reduce unit costs are the elimination of unnecessary construction costs and the omission of undesired services or service levels. These considerations too are best approached from the perspective of the diversity of demand and require the preservation of a range of options as well as flexibility in their use. The design of core units can be used to illustrate the choices involved. General judgments concerning the desirable extent of the core will depend on the relative benefits and costs of the possible construction methods.[28] Precise estimation of these costs and benefits is an aim of current research, and the findings should be factored into small unit models, such as the Bertaud model cited in note 27, to yield the requisite planning guidance. A further point to be emphasized is that what is shown to be desirable on average is not necessarily desirable for all concerned. For example, even if calculations showed that core housing has on balance an unfavorable benefit-cost ratio, a significant proportion of potential residents might benefit from the option of core housing. Conversely, although the overall benefit-cost ratio might be favorable, that result should not obscure the fact that a significant number of potential participants would benefit from options other than core housing and its corresponding financial obligations. Each possibility must be treated squarely in project design.

There are several related considerations regarding service levels. Water supply provides a somewhat simplistic illustration. The questions in this case will be whether to have individual household connections or some kind of communal supply (such as standpipes) and when to introduce individual connections for a particular populace.[29] The problem is analogous to that of core housing: whenever possible, options should be offered. Because not all households can afford individual connections, access to some form of communal supply should be an option. What proportion of participants requires this option and what the range of options should be are essentially empirical demand questions that are not easily assessed.[30] The planning question is one of designing economical total reticulation systems (including fire hydrant and waste disposal systems) over time.

The Rental Option and Other Considerations

Even with the provision of options and careful control of costs, a substantial portion of families, particularly among the poorest, will have access to project shelter only to the extent that rental accommodations are expanded along with ownership opportunities. This conclusion is based on the fact that a significant proportion of households in all of the countries covered by the evaluation rents rather than owns housing. This finding does not imply that all those renting do so as a matter of preference. The choices in a given situation depend on a particular confluence of supply and demand and will be biased toward rentals in the circumstances of restricted supply and overcrowding that prevail in many, if not most, developing-country cities. The point is not that rental accommodations and ownership opportunities should be expanded in step with each other, nor even that project planners should concern themselves with precise ratios, but only that in most instances both should expand.[31] The evaluation research has not indicated any particular need to stimulate the rental market, although appropriate improvements to credit systems (embracing loans to contractors as well as to purchasers) would increase the elasticity of supply of rental accommodations. The most important action is to ensure against avoidable constraints on rental arrangements, such as the restrictions and prohibitions designed into some of the early projects financed by the World Bank.

There is apparently some degree of resistance on the part of developing-country policymakers to rental options, and project planners must take that resistance into account. The underlying notion that renting does

not contribute to suitable solutions to urban shelter problems seems untenable in light of the evidence that large proportions of households in all countries choose to rent. The notion expresses a fear that the renting poor will be exploited by a rentier class—a phenomenon that exists to some extent everywhere. The best way to minimize this tendency is to expand the total housing supply and ensure, by monitoring for specific abuses, that full cost recovery is enforced so that projects do not subsidize a rentier class.[32] A well-executed strategy of this kind will avoid the feared outcome much more successfully than such misguided policies as rent controls.

Finally, it will be necessary to experiment with means (other than renting out housing space) of enabling the poorest households, particularly, to utilize houses and plots as earning assets, for commercial or small manufacturing enterprises or for growing food.

To reiterate, flexibility is crucial in seeking the mix of components that will serve the housing needs of target urban populations. The outlook for progress along these lines is encouraging. For example, at the same time that it adopted the sites and services concept, the World Bank, realizing the limitations of that concept, began to develop the complementary area upgrading approach. Recent years have also brought a significant broadening of options and modification of concepts under both approaches, leading, for example, to a change from materials loans to construction loans, to acceptance of the need for rental components, and to numerous other adaptations. The best illustration of such adaptability thus far has been in El Salvador, where the FSDVM has modified its mutual help program significantly, pushed its already low standards still lower in some projects, and developed the layout and design innovations mentioned above. Analogous changes have been made in the developing programs of the National Housing Authority (NHA) in the Philippines.[33]

Analyses aimed at assessing the relative merits of the area upgrading and sites and services approaches have suggested that, far from being distinct strategies, they belong to a continuum of possibilities with countless nuances. The processes involved in restructuring a wooden house on a Tondo lot, repositioning it within a new grid established by reblocking decisions, moving it to an adjacent overspill area, or even removing it to the Dagat-Dagatan sites and services area four kilometers away are at least conceptually similar. To be sure, time, distance, cost, and the extent of retention of the original structure all vary. The point to be stressed is that they vary along a continuous frame of reference or response and that the differences are frequently very small. Leaving aside the extremes, the principal effort should be to focus policymakers' attention on this continuum and on the scope for improving the total housing stock progressively over time, rather than on the fine-tuning involved in selecting particular types of projects.

Along with these changes in design, which lead to simpler and lower standards and costs and an appropriate balance between ownership and rental options, should come concomitant changes in credit facilities. Not much is known yet about the real demand for credit, and experimentation has only begun, but evaluations of experience do permit the statement of a few principles. Not all participating families will require institutional credit, and the design of credit programs should be directed to those that do. The size of credit programs should be reckoned in terms of the numbers who need credit and their requirements rather than a rationing of supplies among the entire population. Credit should also be apportioned to builders who contemplate rental accommodations, not only to owner-occupiers.

Cost Recovery

These remarks lead to a final, related observation: shelter program maintenance, collections, and cost recovery—and their interrelations—should be vital considerations for designers and managers. They should be dealt with from the beginning of project identification, and projects should not be executed that do not have a favorable relation between revenue extracted and benefits delivered as well as between benefits and costs. For replicability, programs must be designed so that they return, directly and indirectly, approximately as much to public revenues as they require in expenditures.[34] Beyond this, more must be done to make policymakers aware of the potential that projects offer for improving the local fiscal situation. In particular, projects should be used to prompt fuller cost recovery not only among the target groups themselves but, even more important, among higher-income strata if, as in Zambia and many other countries, their housing and services are being subsidized.

It is not claimed here that this is an easy task. On the contrary, precisely because it is difficult, further experimentation is necessary, and planning should include considerable experimentation with various forms of community participation and contribution. Fortunately, the record on this issue is encouraging. Just as they have a desire and capacity to improve their own homes, the urban poor have a desire and capacity for greater participation in their own governance. In the past these capacities have been left largely untapped by program designers, but it has been demonstrated that projects can make effective use of them. More can be done, however, to facilitate project implementation, im-

prove the record on collections, and articulate demands for specific components in future projects within an overall strategy for progressive social change and development. Judicious involvement of the community at all these levels must be more fully explored in planning, project design, evaluation, and associated research.

The Contributions of Evaluation

All of the above findings have stemmed in large measure from the World Bank's Evaluation Program.[35] Evaluation and the associated research have contributed to the advancement of project design and policy formulation in four principal ways. First, evaluation has strengthened the modeling paradigms which frame the design of both projects and research. Second, it has contributed over time to better identification of the uses and users of all management information, including that provided by evaluation. Third, it has contributed to the refinement of indicators and measurements. Fourth, it has helped to break new ground with respect to certain relations between key variables. Each of these contributions will be discussed briefly.

By providing a rigorous framework, evaluation has contributed to keeping a framework in place notwithstanding alterations that were desired or required as project and program lessons were learned. By contributing both to the alterations and to the stability of the basic edifice, evaluation has helped to bring the framework into clearer focus. Examples of such contributions to better understanding include putting self-help and mutual help into appropriate perspectives, identifying the roles of rentals and transfers in the development process, and spelling out the needs for designing better housing finance milieux and credit schemes.

In the realm of identifying uses and users, evaluation has operated to narrow what was a sizable gap at the outset. The initial evaluation design, which was based on quasi-experimental design and statistical rigor and which sought to address a large proportion of the relevant questions, was extremely ambitious and excessively demanding. It was in everyone's interest to seize opportunities to improve the focus and become more selective as the program progressed and each cycle of findings was reviewed. Equally important, process evaluation, which did not play a major role in the beginning, was blended in progressively over time. Panel studies, which did form part of the original design, were used more as time went on. As evaluation results attracted managers' attention, the managers asked evaluators to study and report on increasing numbers of immediate problems. This required increased use of and experience with evaluability assessment, rapid feedback, and other process evaluation techniques. More recently, the World Bank initiated a first experiment that employs participant observers in the field.

An illustration of improved and extended measurements is the demand studies carried out in El Salvador and the Philippines under the Evaluation Program. Along with similar studies in Korea and Colombia under the World Bank's Research Program, these have helped to lay the groundwork for a subsequent generation of urban projects which, by virtue of improved estimates, may be designed and priced more nearly in accordance with the demands of the intended beneficiaries. Also as a result of this work, additional research is under way in these and other countries to extend the range of circumstances (income, climate, city size, culture, and so on) for which there are reasonable demand estimates. In addition, the pioneering work in this program on hedonics analysis as applied to housing has demonstrated the overall cost-effectiveness of the progressive development approach at the same time that it has begun to develop information on the relative contributions of various components to overall project benefits.

The Evaluation Program can truly be said to have pioneered the investigation of transfers within the extended family and other kin and nonkin networks. That such transfers can be important was first discovered somewhat incidentally in a study of control groups in Dakar, Senegal, in 1977. The phenomenon was thereafter followed closely in all projects, particularly in the Tondo project in Manila, the Philippines, where the budgets of a small sample of families were followed closely over three years. Data from the evaluations in El Salvador, the Philippines, and Senegal, as well as from a related investigation in Cartagena, Colombia, have been used in several research papers. These have demonstrated, among other things, that transfers are very important in the budgets of the poor, making up close to half the total incomes of half the families in the lowest third of the income distribution; that they tend to flow from better-off to poorer households within the spectrum of the urban poor; and that they tend to be sensitive to household composition and employment status (households headed by females or unemployed workers are more likely to receive transfers than those headed by employed males) as well as to shifts in income. Furthermore, it appears that there is a basic underlying contract by which resources are provided to poorer households to meet basic needs or to improve housing when opportunities such as these projects afford are present. Currently the research is being extended outside the evaluation framework to exploit the best data bases and the most encompassing sample frames available. This work also addresses the important issue of urban-rural transfers.

It is worth noting in closing that these concluding

statements can be made and documented in large measure because not only the projects being evaluated but also the evaluation program itself have been under constant scrutiny. Thus, evaluation methods and processes were evaluated along with evaluation results at each of six annual conferences in which project managers, field evaluators, and responsible officials of the sponsoring agencies participated. A detailed record of these discussions and the consequent decisions has been kept. This made possible the meta-evaluation, or "evaluation of evaluation programs," on which these concluding remarks have been based.

Notes

1. Progressive development is a method of housing construction or upgrading that is achieved through staged development over extended periods and involves considerable flexibility in housing design, materials used, and the family's (self-help) contribution to the construction process.

2. At the time, experience with such approaches to shelter development was sparse, and the bulk of information—most of it, at this stage, speculation—came from observation of spontaneous "invasions" of land by squatters in several countries. Empirical research had been extremely scanty, and rigorous evaluation of experience was nonexistent.

3. It has not been possible as yet to analyze whether present levels of project costs and standards systematically contribute to underrepresentation of lower-income households from the start of projects.

4. In some interior cities of El Salvador lower population densities and good access to well water have made the larger plots and fewer services of the *colonias* more attractive than the options designed by the project agency on the basis of its earlier experience in the larger cities.

5. Reblocking is the process of applying, insofar as possible, normal subdivision processes to the less orderly division of space that results from most illegal occupations of land by squatters. The physical subdivision process requires a counterpart process of mapping prior "claims" in the old order into accepted titles in the new.

6. Explicit selection does not occur within area upgrading projects, since they typically deal with pre-existing populations.

7. In El Salvador and Zambia, where the genuine concern of project administrations that the lower income groups be reached predated any involvement by international agencies such as the World Bank, the selection procedures appear to have had a particularly good record of selecting families from within prescribed income ranges.

8. This discrimination has been corrected insofar as possible.

9. What is more, contrary to what one might expect from experience in developed countries, where formal sector employment predominates, for the majority of participants in the El Salvador projects evaluated, weekends were the least favorable times to participate in mutual help, as this was when their (informal sector) earnings were typically the highest.

10. Use of the term *demand* has been avoided up to this point, for very little is known about it. This was true when these projects were designed, and although the research program has contributed materially to great advances in the understanding of the demand for housing in recent years, the (derived) demand for credit has been little studied to date.

11. Furthermore, the evaluation's findings about income transfers indicate that the two types of restriction may be incompatible. That is, since families which are alike in other respects have very different access to transfers, they must be supposed to have commensurately different demands for credit. If this is so, a given loan fund, whether or not adequate in itself, will not be optimally allocated among families by rationing a small amount to each.

12. The evaluation findings are so far consistent with this finding (see Jiménez 1982). In addition, the administrative mechanism for ensuring materials purchase may carry its own restrictions and added costs.

13. This paragraph encapsulates the frustrations experienced in the Senegal project, the only one of the four to experience serious difficulties.

14. A social problem, however, may still exist. If significant numbers of families that have moved to new sites fail to build permanent structures within a reasonable period, it may be difficult to obtain and sustain policymakers' support for the sites and services option.

15. Another way of viewing this tradeoff is that if a family is forced into this situation and chooses nevertheless to construct a house with its own labor, the cost of this self-help method should include the cost of rent during the construction period—which, in El Salvador, has run up to six months. This added cost would not be present, or present to the same extent, in some of the "higher-cost" options, for example, lots with core housing.

16. In this connection it is noteworthy that in the same project consideration has been given to vesting the responsibility for maintenance of communal standpipes, where similar problems could be anticipated, in community groups. It has also been suggested that if a separate garbage collection fee existed, garbage collection services might be improved. The adequacy of service would then affect, and be affected by, payment of this fee alone and not the entire cost recovery effort.

17. For additional details on project collection efforts and on the constraints on the LCC's handling of arrearages, see Bamberger, Sanyal, and Valverde (1982), chs. 9 and 10.

18. In one case the FSDVM promoted, or at least actively encouraged, a protest directed against the recalcitrant state water utility. This demonstration inadvertently provided a model for organizing pressure on the Fundación itself later.

19. A model to guide practice in the adaptation of project components to actual demand is not yet available. A high priority should be given to developing one.

20. As pointed out above, there were substantial delays in the implementation of projects already evaluated. More recent experience indicates, however, that implementation delays for

urban projects are very near the mean for all Bank-financed projects.

21. The timing of the introduction of various services is a third, ancillary consideration.

22. Policymakers are sometimes reluctant to promote or even to permit two-story construction on the grounds that a significant proportion of families would be unable to build "suitable" additional stories. Evaluation findings that show the extent to which families hire others to do their building should help to redefine this risk.

23. Mayo (1982). Comparable information is becoming available under a World Bank research project on one or more cities in Colombia, El Salvador, India, Indonesia, Korea, and the Philippines.

24. Informal housing—defined for the purposes of this study as housing which has been constructed without official permission to convert land from agricultural use, without a building permit, or in violation of building codes—constituted about 90 percent of new housing starts in 1971–76 and 75 percent after 1976.

25. Infrastructure costs for building to these implied densities may, however, reduce the advantages of the central location.

26. Although the plot sizes of past projects have generally been acceptable to the target populations, little information is available as to optimal plot size distributions in projects. This important area should be given priority in evaluation and related research, particularly in the developing world's largest and most rapidly growing cities.

27. Such success has been one factor that has motivated the World Bank to develop small unit planning models to deal efficiently with tradeoffs in project layout design. See, for example, PADCO and the World Bank (1981).

28. Such calculations will include the benefits, if they can be demonstrated, of providing some amount of core housing to minimize reticulation costs, encourage use of sanitation facilities, or stimulate construction by making it easier to move in at once.

29. There are, of course, many other factors which affect unit costs, such as capacity, hours of service, and quality of water. Attention is limited here to factors which directly affect project area design.

30. Demand analyses from all four countries in the original evaluation program show that significant proportions of the target group are satisfied with communal water supply and pit latrines (Zambia project participants), choose low service level options if they are available (El Salvador and Senegal control groups), and place a relatively low hedonic evaluation on sanitation facilities (Philippines project participants).

31. There may be instances where crowding has been of such proportions that a significant expansion of owner-occupied housing will imply that the absolute number of renting families decreases.

32. To guide this aspect of the program, analyses of the indirect effects on housing markets of changes in supply wrought by large projects need to be performed within evaluation research.

33. Few specified examples can at present be cited for the other two countries in the evaluation program. This is principally a result of their later phasing and slower development and the absence to date of second projects. Nevertheless, a similar pragmatism has been evinced in response to problems encountered in the implementation of the first projects.

34. This does not imply that there should be no subsidy from higher-income groups, either within projects or over a broader spectrum, but rather that the subsidy should be on a scale that can be sustained in a large program over time.

35. This is not to claim that operational personnel would have remained in ignorance without a rigorous evaluation program. Sometimes the first insights have come from the evaluation program, but just as often evaluation has merely confirmed suspicions that arose from project experience. The key point is that, by virtue of the rigor of its approaches, evaluation has assisted the learning process to proceed more confidently—and that is an important contribution.

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