

## The Tondo Project: Whom Have We Served?

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*The Tondo Foreshore community is a beneficiary of a slum upgrading program sponsored by the World Bank, designed to provide adequate housing for approximately 200,000 people. Empirical findings, however, show that a substantial number of the beneficiaries do not belong to the specified poverty group. The community is characterized by heterogeneous income; and a proliferation of multi-story dwellings and well-constructed homes are evident. For a more meaningful realization of housing programs and for a better appreciation of the relationship between poverty and inadequate housing, it may be well to consider the formulation and implementation of policies to achieve specific poverty objectives.*

### Introduction

The shanty towns and overcrowded slums of the developing world present a striking image of the substandard living conditions of many urban dwellers. It is often in response to this "visual evidence" that housing policies are enacted and improvements initiated. As important as this visual evidence is to understanding the problems of inadequate housing, such evidence *alone* may disguise the true nature of both the housing problem and its presumed solutions.

In the case of the Tondo Foreshore community, a squatter settlement located in Manila, Philippines, the grossly inadequate housing for close to 200,000 people prompted a program of slum upgrading sponsored by the World Bank. Significant improvements in housing quality have been achieved since the project was initiated in 1976, and simultaneously

much knowledge has been gained on the causes of basic-needs deficits in housing. This paper addresses the relationship between poverty and inadequate housing. More specifically, we will be interested in documenting the income profile of Tondo residents in order to fully understand whom the project is serving.

The paper proceeds by discussing the economic determinants of substandard housing; reviewing available data sources and methodologies, and then determining the location of the Tondo population on Metro Manila's income distribution; and offering some conclusions on the income heterogeneity of informal housing communities and on the "leakage" problems inherent in any basic needs program. The paper is followed by a technical annex on the robustness of income distribution data for Tondo and Metro Manila.

### The Determinants of Inadequate Housing

At one level, the only determinant of inadequate housing is poverty.

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If there was no shortage of money, there would be no slums. However, in a world of competing claims on scarce resources, is it fair to conclude that the housing problem is synonymous with the poverty problem? In other words, is inadequate housing solely the result of the lowest, say, 40 percent of households of an urban area's income distribution being unable to afford decent shelter?

If poverty is the prime determinant of inadequate housing, then slum upgrading and other housing intervention can be motivated by basic-needs arguments. In addition, the dual objectives of poverty alleviation and improvements in the urban housing stock can be jointly achieved by the same programs. However, if barriers in addition to poverty determine the inadequacy of available housing, poverty alleviation will not necessarily solve the housing problem nor will public expenditures on housing necessarily occur only to the poor.

In addition to low incomes, economists argue that market failures contribute to the low quality housing consumed by poor families.<sup>1</sup> Institutional constraints, such as restrictive zoning requirements, cumbersome land registration practices, complicated land title disputes, and high transfer and property taxes combine with economic constraints to prevent the subdivision of urban land into plots that are affordable by the rapidly

growing populations of Third World cities. The insecurity associated with prevailing tenure arrangements,<sup>2</sup> scale economies in the provision of basic infrastructure, and a host of public goods problems also contribute to failures in the housing market.

These housing market failures are reflected in the slowly growing and highly inelastic housing supply in the so-called formal market. Meanwhile, the informal housing sector, encompassing a wide range of shelter qualities and tenure types, proliferates. Demand pressures tend to be reflected in rapidly rising formal sector prices and increasing informal sector solutions.

Market failures in the housing market imply that poverty *alone* is not at the root of the housing problem.<sup>3</sup> This further implies that habitation in low-quality housing is not a good predictor of income level.

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<sup>2</sup>In the case of Tondo, the inability of households to gain legal title to land was seen as a prime determinant of households' unwillingness to upgrade their homes. Without security of tenure no incentive existed to invest in home improvements since the perceived risk of not realizing a return on such investments was considered extremely high. Note that the relationship between poverty and the existence of this risk, although correlated, need not be causal.

<sup>3</sup>Anecdote evidence which supports this view is abundant. Reports of households inhabiting Bedouin tent cities owning electric refrigerators and of Latin American *favelas* outlined by television antennas reflect the choices individual families make in reaction to prices and available opportunities. If low incomes were the only barrier to decent housing, we would not expect to observe an abundance of consumer durables in substandard homes.

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<sup>1</sup>For a full discussion of the economic notion of market failure see, for example, R. Musgrave and P. Musgrave, *Public Finance: In Theory and Practice* (New York: McGraw-Hill, Inc., 1973), Chapter 3.

Readers familiar with the literature on other informal sectors — especially informal labor markets — should not be surprised by this conclusion. One of the major findings of this literature is that jobs in the informal sector may pay as well or even better than comparable formal sector positions.<sup>4</sup> The barriers to participation in any formal activity of the economy are such that poverty is not the only obstacle to entry.

If informal housing communities like the Tondo case are responses to problems which include but go beyond the constraints of low incomes, then it is worth inquiring what the socioeconomic profile of these target populations actually is. Knowing the beneficiaries of given programs is a prerequisite for evaluating the success and impact of any public intervention.

### Study of Income Distribution

#### *Data and Methodology*

In order to determine the relative income position of Tondo residents on Manila's income distribution requires household income data for both Tondo and Manila. Data on Tondo are available from the panel data study conducted by the Research and Analysis Division (RAD) of the National Housing Authority (NHA). Information on Metro Manila is available from a variety of national surveys. We will rely on a recently completed study by the National Census and Statistics Office (NCSO).

For the purposes of making this comparison, it would have been

<sup>4</sup>See D. Mazundar, "The Urban Informal Sector," *World Development*, Vol. 4, No. 8.

ideal if both sources had used identical survey instruments and sampling designs and if the surveys were conducted during the same time period. Under these conditions we could trust that household income was consistently defined across samples and that no cost-of-living adjustment would be necessary for comparing the data. Of these two conditions only the latter is satisfied. The Tondo data were collected during February 1979 while the NCSO results refer to the first quarter of 1979.<sup>5</sup>

As for the definitions of income and the respective interview and sampling procedures, we believe that the Tondo survey may have been more accurate in capturing all sources of income and as such may bias the results such that Tondo residents appear relatively better-off than they are in fact.

The results of the two surveys are presented in Table 1. In 1979, median income in Tondo was approximately 78 percent of Metro Manila's median income. This implies that more than half of Tondo residents fell in the bottom 50 percent of Manila's income distribution. The precise figure from Table 1 is that close to two-thirds of Tondo's families lay below median income in Manila.

If Table 1 is examined more closely, it shows that although Tondo residents are on average poorer than the

<sup>5</sup>Had the data not been from the same time period the choice of a price deflator required to convert all incomes into constant dollars would have been a critical determinant of the relative income position of the Tondo group.

Table 1. Distribution of Income in Tondo Foreshore and Metro Manila (1979)

Income class (pesos/year)	Metro Manila		Tondo Foreshore	
	(%)	(Cum.%)	(%)	(Cum.%)
Less than 1000	1.0	1.0	1.0	1.0
1000 - 2000	1.6	2.6	1.0	2.0
2000 - 4000	6.9	9.5	7.8	9.8
4000 - 6000	11.5	21.0	18.5	28.3
6000 - 8000	12.2	33.2	13.7	42.0
8000 - 10,000	9.5	42.7	12.2	54.2
10,000 - 12,000	7.9	50.6	12.1	66.3
12,000 - 14,000	8.6	59.2	5.9	72.2
14,000 - 16,000	5.6	64.8	5.3	77.5
16,000 - 20,000	9.3	74.1	8.0	85.5
20,000 - 30,000	12.0	86.1	7.6	93.1
30,000 - 40,000	6.3	92.4	2.5	95.6
Greater than 40,000	8.6	100.0	4.4	100.0
Median		12,140		9360

Source: Philippines (Republic), National Census and Statistics Office, *Integrated Survey of Households* (preliminary tables); Tondo Foreshore, 1979 RAD Household Survey.

typical Manila household, the distribution of Tondo incomes clusters closer toward Manila's median income than toward the poorer tail of the city-wide distribution. Table 2 combines the data of Table 1 and presents the percentages of Tondo residents falling in Metro Manila's income quintiles. Note that 27.2 percent of Tondo households belong to the upper 40 percent of Manila families classified according to income. These families have incomes in excess of 2,000 pesos per month. In at least relative terms, these households cannot be classified as the urban poor and their residency in Tondo cannot be ascribed to poverty alone.

Looking at the lower end of the income distribution, half of Tondo's population can be classified as belonging to the poorest strata of urban society, falling below the 40th percen-

tile. Clearly, the income heterogeneity of the Tondo population is borne out by these data.

#### *Some Qualifications*

The income profile of Tondo project beneficiaries generated above must be interpreted with a number of qualifications in mind. The use of different survey instruments and sampling designs by NCSO and RAD as already noted, may have led to higher estimates of total income for Tondo residents. In addition, questions concerning the robustness of the results need to be addressed.

For one, the 1976 World Bank appraisal report of the Tondo project determined that in 1974 median incomes in Tondo were only 60 percent of median incomes throughout Metro Manila. By implication, Tondo

Table 2. Relative Income Position  
of Tondo Residents

Metro Manila Income Quintile	% of Tondo Households
Bottom 20%	24.2
2nd	25.8
3rd	22.8
4th	17.7
Top 20%	9.5

Source: Philippines (Republic), National Census and Statistics Office, *Integrated Survey of Households* (Preliminary tables); Tondo Foreshore, 1979 RAD Household Survey.

residents portrayed greater relative poverty than is found in our analysis of 1979 data. The reasons for this sizeable differences may include the following:

- (1) The 1974 estimates of Tondo resident incomes may not be accurate. Households may have perceived this survey as part of project selection procedures and may have biased their responses downward anticipating some lower bound income criteria.
- (2) The appraisal report's result was based on comparing 1971 Metro Manila data with 1974 Tondo data. Problems associated with selecting the appropriate price deflator, discussed above, may have biased the report's findings.
- (3) Project induced effects may have increased the income levels of beneficiaries between 1974 and 1979. For example, demand for construction workers noticeably increased at the early stages of project implementation and may have

led to higher earnings for a significant number of households. If such effects have been sizeable, then the 1979 data are not reliable indicators of pre-intervention characteristics of the target population.<sup>6</sup>

Another caution that must be applied in analyzing the income profile of Tondo residents involves the role of family size. The comparisons are based on total household incomes. No per capita or per adult equivalent standardizations have been applied. Therefore, the Tondo population may in fact be poorer than is portrayed by the total income concept if family

<sup>6</sup> Another potential project impact which could explain the discrepancy between the 1974 and 1979 findings is turnover. If security of tenure encouraged middle income encroachment on project land, and/or if affordability problems drove out poorer families then the income profile of the population would be expected to change as richer households replaced poorer families. However, the project's Code of Policies is likely to have prohibited these occurrences. Furthermore, preliminary results indicate no significant difference in the incomes of households entering versus those leaving the project area.

sizes are correlated with residential location. Lacking better data on the distribution of household size in Manila, this hypothesis cannot be analyzed.

Lastly, some instability in the estimates of income distributions for Manila suggests that caution must be used in interpreting the data.<sup>7</sup> Annex 1 presents the available income distribution data for Tondo for the years 1974, 1978, 1979, 1980, and 1981, and for Metro Manila for the years 1971 and 1979. The intertemporal movement in these size distributions — distributions which economists, at a conceptual level, believe to be relatively constant in the short-run — may suggest problems in data collection and handling as well as in fundamental measurement issues. For a poor urban population, income distribution estimates are likely to be highly sensitive to definitions of what household incomes include, to the seasonality of earnings and to the general stability of all income sources.<sup>8</sup> The inability to accurately specify a permanent income concept is likely to plague any analysis which relies on making distributional comparisons in a development setting.

Although this list of qualifications casts doubts on the accuracy of the estimates, the overall importance of

<sup>7</sup> See V.V. Bhanoji Rao, "Data on Income Distributions in the Philippines," Division Working Paper No. 1980-4, The World Bank, EPD, 1980 for further discussion of this issue.

<sup>8</sup> See D. Kaufmann and D. Lindauer, "Basic Needs, Inter-Household Transfers and the Extended Family," Urban and Regional Report No. 80-15, The World Bank, DEDRB, 1981.

this type of analysis may justify the acceptance of relying on the considered best available evidence. In the section to follow, the implications of these findings will be briefly considered.

### Conclusion and Implications

The empirical results presented above are intended to reveal the distributional aspects of the Tondo project's benefits. In so doing, considerable income heterogeneity of this "squatter" community is observed.<sup>9</sup> The findings suggest that failure to belong to the formal housing sector is not a robust indicator of a household's poverty level.

The results further indicate that a substantial number of beneficiary households are likely to fall outside the bounds of any specified poverty group. If a project such as this is to be motivated on the grounds of poverty alleviation then the "leakage" of project benefits to groups who do not necessarily fall under this category must be recognized. Such "leakages" are likely to be inevitable in any *in situ* housing program and, more

<sup>9</sup> Tondo may, in fact, be a somewhat unique informal housing community. It is older than most, dating to the early post-WW II years. As such its residents may be more established, and hence better off, than is typical in most squatter areas which tend to service many newly-arrived migrants. The relatively superior position of Tondo is in evidence when compared to the income profiles of some of the other informal housing communities of Manila. A household survey also conducted by the RAD group on the following communities; Malabon, Mandaluyong, and Parañaque, revealed that, compared to Tondo, 28 percent *more* of their residents fall in the bottom 40 percent of Manila's income distribution.

generally, are likely to be an implicit cost of any basic-needs program where exclusion is difficult.<sup>10</sup> Depending upon the size of these "leakages," existing urban shelter programs may not be the most cost-effective means for realizing anti-poverty goals. Alternatively, if improving efficiency in the housing market is a primary objective, then "leakage" effects are less of an issue and existing interventions may be easily justified by placing relatively less emphasis on their distributional outcomes. What the results are meant to illustrate is that housing and anti-poverty objectives may not be easily achieved with the same interventions and that their distinct goals should be individually addressed during project design and implementation.

<sup>10</sup>See M. Selowsky, *Who Benefits from Government Expenditures: A Case Study of Colombia* (New York: Oxford University Press, 1979) for a discussion of this issue in Colombia with regard to the distribution of public expenditures on education, health, and utilities. Also note that given the limited study of the beneficiaries of basic needs programs, we have few benchmarks from which to assess whether the "leakages" encountered are in any way "out of the ordinary."

Another implication of the findings of Tondo's income heterogeneity is that upgrading activities of individual families may prove to be more substantial than was originally anticipated. The proliferation, since the project was initiated, of multi-story dwellings and of well constructed homes can, in part, be explained by the income evidence we have reported.

In conclusion, it is stressed that this discussion of empirical findings is not in any way intended as a criticism of the Tondo Project. On the contrary, the Project appears to have met many, if not all of its stated objectives. Concerning its distributional outcome, project design was concerned with being able to reach affordability levels compatible with incomes in the lowest deciles. These goals have been met. The related but separate issue of intra-project distributional objectives was rarely addressed and policies to achieve specific poverty objectives were generally not formulated. Perhaps, a better appreciation of the distinction between inadequate housing and relative poverty levels may, in the future, permit incorporation of such policies.

**ANNEX 1. The Distribution of the Household Income  
in Tondo (1974;1978-1981) and Metro Manila (1971; 1979<sup>a</sup>)**

Cumulative % of Households (in deciles)	Metro Manila		Tondo				
	Cumulative % of income		Cumulative % of of Income				
	1971	1979 <sup>a</sup>	1974 <sup>b</sup>	1978	1979	1980	1981
Bottom 10%	2.3	3.4	0.0 <sup>b</sup>	2.7	2.3	2.4	2.7
" 20%	6.0	7.8	0.8	6.7	5.9	6.2	6.7
" 30%	10.7	12.8	4.7	11.7	10.3	10.8	11.6
" 40%	16.0	18.7	10.3	17.6	15.7	16.4	17.4
" 50%	22.6	24.9	17.2	24.5	22.2	22.9	24.2
" 60%	31.2	32.7	25.9	32.7	29.9	30.6	32.3
" 70%	40.6	41.4	36.8	42.3	39.0	40.4	42.0
" 80%	54.7	51.7	51.0	53.9	50.4	52.2	54.2
" 90%	75.4	64.3	69.7	69.2	65.7	68.0	70.2
" 100%	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median Income. Current Pesos/Yr <sup>c</sup> (1979 Pesos/Yr.)	5,208	12,140	3,504	8,150	9,480	11,400	14,400
	13,813	12,140	5,552	9,685	9,480	10,308	11,445

<sup>a</sup> Refers to the 1st quarter of 1979.

<sup>b</sup> Over 14 percent of the Tondo Foreshore Development Authority's sample of Tondo residents reported zero income for the survey month.

As noted in the text, this type of measurement problem complicates estimating a permanent income concept for this population. This decile cell must be interpreted accordingly.

<sup>c</sup> The Manila Consumer Price Index was used to inflate current pesos into 1979 pesos.

**Sources.**

**Metro Manila:**

- (i) 1971 — Philippine (Republic), Bureau of Census and Statistics, *Family Income and Expenditure Survey*.
- (ii) 1979 — Philippine (Republic), National Census and Statistics Office, *Integrated Survey of Households*.

**Tondo**

- (iii) 1974 — Philippine (Republic), Tondo Foreshore Development Authority, *Socioeconomic Survey Report*.
- (iv) 1978-1981 — Philippine (Republic), National Housing Authority, Research and Analysis Division, *Primary Sample Household Survey*.