

THE UNIVERSITY OF CALGARY

PLANNING FOR SMOKEY MOUNTAIN: A VIEW FROM THE BOTTOM OF THE HEAP

A Masters Degree Project

Submitted by

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TO THE FACULTY OF ENVIRONMENTAL DESIGN
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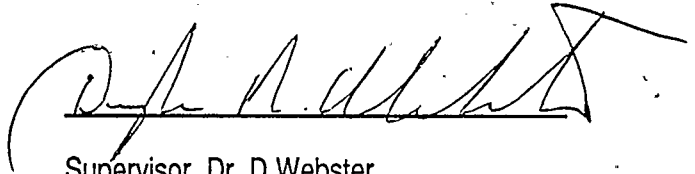
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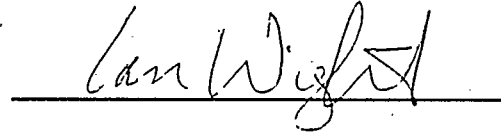
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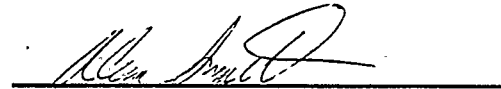
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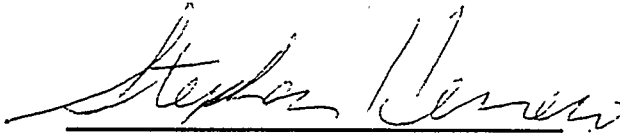
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Thanks also go to members of my supervisory committee for their interest and support.

Special mention must be made of the residents of Smokey Mountain who opened their community and allowed me to see the plans through their eyes. To all those who befriended me and helped with the surveys - thank you! It has been a privilege to know you and to advocate your case. This document is dedicated to you.

ABSTRACT

PLANNING FOR SMOKEY MOUNTAIN: A VIEW FROM THE BOTTOM OF THE HEAP

By: Anna Bubel

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A MASTERS DEGREE PROJECT,

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Supervisory: Dr. D. Webster

The Presidential Taskforce on Waste Management in Manila (Philippines) was commissioned in 1987 to develop a solid waste management plan for Metropolitan Manila. The Taskforce was also required to plan for the provision of alternative means of livelihood for all scavengers. In this Master's Degree Project, the subsequent plans, particularly as they relate to a community of dump scavengers at "Smokey Mountain", are examined in detail. The impacts of planners' values on both the planning processes and the intended beneficiaries are emphasized.

This case study demonstrates that planners must critically evaluate their assumptions and determine whether they wish to preserve the status quo or promote social transformation. The author's personal social learning experience supports the view that if plans are to be sensitive and sustainable they must incorporate elements which empower communities. The Smokey Mountain case, for example, indicates the strong need for true community development, especially in terms of enhanced economic self-sufficiency and socio-political organization. The interests of the powerless must not be forsaken when seeking the metropolitan good.

Key Words: Scavenger, Manila

EXECUTIVE SUMMARY

The purpose of this study was to examine the possible socio-economic impacts of proposed plans to develop a new waste management system for Metropolitan Manila (Philippines) on a community of scavengers living on a dump named "Smokey Mountain". The dump is to be closed as a result of the new plans. In cooperation with the Metropolitan Manila Commission and the Presidential Taskforce on Waste Management, the researcher conducted four months of participatory research in an attempt to discover the nature and extent of the related impacts.

As the researcher was not able to formally present her findings prior to her departure from the Philippines, this section represents a simulation of a final presentation to the Presidential Taskforce on Waste Management. It is written in the first person and was delivered during her oral defence on May 1, 1989. It constitutes a summary of her observations and conclusions.

Good afternoon members of the Presidential Taskforce on Waste Management, ladies and gentlemen. Thank you for giving me this opportunity to present my final report. As you know, last year I spent 4 months researching the possible socio-economic impacts of the Taskforces' plans on the residents of Smokey Mountain. During that time I interviewed most of you and conducted extensive community surveys. An analysis of the plans, along with my research results and recommended action points, will form the bulk of this presentation. As the people of Smokey Mountain have asked me to advocate their case before you, my presentation is entitled: "Planning for Smokey Mountain: A View from the Bottom of the Heap".

To begin, it must be stated that the plans for the development of a new metropolitan solid waste management system will have both positive and negative impacts on the residents of Metro Manila. On the positive side, the 30% of refuse which is presently not collected will be disposed of under the new system, and the health hazards posed by uncollected garbage and open landfill sites will be eliminated. On the negative side, all of the persons connected with the informal collection and recovery of waste will be

rendered 'unemployed' and existing, inexpensive and effective practices of waste recycling will be superseded by more expensive, potentially less efficient means of source separation.

The issue of compensation for lost livelihood is both complex and critical. None-the-less, while the plans state that all of the persons presently involved in waste recycling will be compensated for their loss of income, nothing has been done to estimate their numbers or needs. For example, the Technical Committee on Scavengers has focused on dump scavengers, particularly those living in Smokey Mountain. But what of the itinerant scavengers and announced scavengers? Given that they are transient, how will they be located, organized and provided with sources of income? Have buyers and dealers been informed of the plans? Have they supported plans which will put an end to their relatively lucrative means of livelihood? Will they be compensated? It seems both unwise and unethical to overlook such people when planning for scavengers. I will return to such groups later in the presentation.

Now, I will focus on the community of Smokey Mountain. What do we know about it? Approximately 14,000 people live at the dump. They live in extremely poor housing conditions, which have led to poor health standards. The people have been evicted three times from this area; they still fear eviction and are looking for guarantees of land tenure. The residents have low levels of education and will not qualify for many jobs outside of scavenging. Only 30% of family heads have marketable skills.

The community's dependence on scavenging has not been determined. For example, the City of Manila's study indicates that only 40% of family heads consider scavenging their major source of income. Scavengers rely on daily income for their survival, they cannot work without payment.

The daily income of a scavenger is approximately P50 per day. Total household incomes have not been determined because there is no measure of secondary income such as that provided by the 55% of school aged children that work as scavengers.

The community is capable of being organized. The Katipunan, the umbrella organization which protested the proposed relocation plans, is representative and respected. It could be used to involve the community in the planning process.

Given such information, let us examine the plans for Smokey Mountain. In my opinion, the plans suffer from two major deficiencies: 1) the plans do not suit the intended beneficiaries and, 2) the plans do not promote community empowerment as an end in itself. I will now examine three ways in which the plans will affect the residents of Smokey Mountain.

First, the planning problem was initially defined in metropolitan and technical terms: efficiency, not equity was at the heart of the plan. The Steering Committee on Solid Waste Management led the planning process. The Technical Committee on Scavengers was left in a very passive position; it had to ameliorate the negative impacts associated with the technical advances. Further, the technical leadership has resulted in a situation wherein the physical development of the community has preceded the economic and social development of the area. For example, while Smokey Mountain will be closed for dumping as early as February 1989, livelihood schemes will not be operating until the following year. How are residents expected to survive in the interim? They cannot scavenge off old garbage for very long and they rely on daily income. Clearly, both physical and economic development must be provided in tandem if the threat of mass hunger is to be averted. Such basic human considerations must be elevated to the top of the planning agenda.

Second, the plans to deliver alternative sources of income are not appropriate to the community. For example, 10% of the scavengers are to be absorbed into the new waste management system. They will be hired to manually sort through garbage at the new disposal plants. However, there is no firm commitment to the use of manual sorting, and sophisticated machinery may be employed if funds become available. Also, the new plants will be over 20 km away from Smokey Mountain; it will take over two hours one way to commute to work, and the cost of doing so will be high. Consequently, in strictly practical terms, the absorption of workers into the new system seems unlikely.

Another 30% of the scavengers are to be employed in the formal sector. This also seems unrealistic given a real unemployment rate of 25% in Metro Manila. The average level of education - grade 4 - will add to the problem since garment factories hiring unskilled labourers are demanding high school diplomas. The scavengers will not be able to compete for such jobs unless special arrangements are made. Otherwise, the prospects for employment in the formal sector seem dim.

Finally, community production centres (cpc's) are also seen as a potential source of employment for the residents. The demise of the first cpc, after only 4 months of operation, renders this hope suspect. The first coop failed due to inadequate management, inappropriate skill demands and insufficient wages. This is not surprising since cpc's seem distinctly unsuited to Smokey Mountain. Cpc's require workers to independently run a business with little or no training. The types of skills needed to run a cooperative include: management, production, quality control, marketing, and distribution. Cooperatives also take a long time to become established: what will people eat while the coops are struggling to get on their feet? Also, given that scavengers are notoriously individualistic, how realistic is it to expect them to strike harmonious working arrangements overnight?

Given that the survival of many families currently hinges on their daily access to refuse, alternative livelihood programs should be evaluated in terms of their ability to respond to the following criteria.

1. Do they reach the target population?
2. Are they independent of scavenging?
3. Can one measure their success or failure?
4. Do they make appropriate skill demands?
5. Do they provide sufficient training
6. Do they provide or lead to permanent work?
7. Do they provide sufficient income?
8. Can they provide livelihood immediately after the dump closure?

Third, the Taskforce has neglected to involve the community in the planning process. To begin, a systematic information campaign was not conducted. Consequently, my survey of the residents of Smokey Mountain revealed that in Barangay 129, only 32% of the people knew of the plans to develop the area and provide livelihood. What's worse is that of those who knew of the plans, 26% still believed that the plans would negatively affect them. The planners also failed to ask the residents about their priorities for development. My survey results demonstrate that the people were able to articulate their preferences. The following pattern of priorities emerged.

1. Land Tenure (no relocation)
2. Livelihood
3. Housing
4. Water/Electricity

When asked what types of alternative livelihood they would like to see provided, the residents responded as follows:

Self-Employment	38%
Factory Employment	34%
Vague/No answer	26%
Cooperative	02%

Given the official emphasis on cpc's, it seems clear that such pertinent community views were neither solicited nor integrated into the plans.

The lack of commitment to true community development was also reflected in the failure to invite a community representative to sit on the Technical Committee on Scavengers. The planners seemed to view the residents as social engineering projects and not people with vested interests in their future. The institution- building recommended by the planners seemed to simply refer to the development of structures and the provision of services at Smokey Mountain. In my opinion, the real challenge facing the planners is a form of institution-building which promotes community self-reliance to the point where the community can govern itself and meet its basic needs.

In order to avoid long term damage to the broad community of scavengers, I would recommend that the following issues be quickly resolved. First, both itinerant and announced scavengers cannot be overlooked. Their numbers will have to be determined and their needs will have to be assessed. More than likely, their needs will be different those those of the scavengers at Smokey Mountain; the plans must be tailored to suit them.

Second, the question of dependence on scavenging at Smokey Mountain must be settled. For example, while the City of Manila's study indicates a low dependence, the community's high ranking of livelihood suggests that there must be a significant, if secondary, dependence on scavenging. This is further confirmed by the fact that the most commonly expressed concerns regarding the dump closure related to losses of income.

Third, existing levels of household income must be determined in order to guarantee similar levels of income after the dump closure. This will prove to be a difficult task since there are no accurate

gauges of secondary income. Also, scavengers tend to deflate their earnings for fear that they will lose the few services presently available to poor groups.

Fourth, new means of employment that provide regular work and decent wages will have to be provided. Residents will eventually face additional expenses such as paying the 'mortgages' on their new homes. Also, children will be sent to school, and supplies such as uniforms and books will have to be purchased. None of the programs presently proposed for Smokey Mountain can provide stable, well paying sources of income. Agreements with companies that could employ skilled and unskilled labourers from Smokey Mountain should be struck. For example, in exchange for tax exemptions, companies might be willing to sign long term contracts with residents who would not normally qualify for such positions. Such arrangements could guarantee employment at the time of closure, make appropriate skill demands, provide steady employment and ensure adequate wages.

Finally, planners must become involved in the empowering of the community of Smokey Mountain. Community organizations must be strengthened and livelihood projects which promote self-sufficiency should be developed. Leadership training should be provided in order to foster community control and self-reliance. Concrete steps can be taken in this direction. For example, both Barangays must be informed of the proposed plans. At these meetings the planners should not present finalized plans, but should solicit people's input. Further, a sincere effort should be made to schedule formal Taskforce meetings at times and locations that encourage the attendance and participation of representatives from Smokey Mountain.

In order to gain the trust and involvement of the community and to expedite the planning process, I believe that the Presidential Taskforce should take the following steps in the immediate future.

1. Initiate dialogue directly with the community. Ask members of the Katipunan about ways to involve residents in the planning process.
2. Make a public commitment to the following:
 - all persons negatively affected by the plans will receive compensation,
 - the household incomes of such persons will be maintained,
 - the dump will not be closed until alternative sources of livelihood are made available.
3. Determine the number of announced and itinerant scavengers and develop appropriate programs and strategies.

4. Devise livelihood programs that provide permanent work at reasonable wages for the residents of Smokey Mountain.

To conclude, I would like to thank the members of the Presidential Taskforce for the opportunity to study this complicated planning process and complex community. I would urge the members to revise their plans in order to truly reflect the interests of the residents of Smokey Mountain. I believe that this can be done by critically re-evaluating the values and assumptions inherent in the existing approach to planning. I sincerely hope that the planners will rise to the challenge of enabling the community of Smokey Mountain to organize, grow strong and become self-sufficient. I know that the people of Smokey Mountain are eager to participate and cooperate; they deserve the chance to plan their future. Thank-you!

TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGMENTS.....	ii
EXECUTIVE SUMMARY.....	iii
TABLE OF CONTENTS.....	x
LIST OF FIGURES.....	vi
CHAPTER 1 PLANNING AND PLANNERS.....	1
1.0 INTRODUCTION.....	1
1.1 WHAT IS PLANNING?.....	3
1.1.1 Rational Planning.....	3
1.1.2 Social Learning.....	4
1.1.3 Social Mobilization.....	5
1.2 PLANNERS AND VALUES.....	6
1.3 VALUES AND PLANNING IN THE CONTEXT OF SMOKEY MOUNTAIN.....	7
CHAPTER 2 METHODOLOGY.....	8
2.0 INTRODUCTION.....	8
2.1 LITERATURE REVIEW.....	8
2.2 METROPOLITN MANILA COMMISSION (MMC) ORIENTATION.....	8
2.3 MEETINGS WITH SOCIAL WORKERS.....	9
2.4 SITE VISITS.....	9
2.5 LIVELIHOOD PROGRAM.....	10
2.5.1 Background to the Surveys.....	11
2.6 COMMUNITY SURVEY.....	12
2.6.1 Limitations.....	12
2.6.2 Data Analysis.....	13
2.7 ATTENDANCE AT TECHNICAL COMMITTEE MEETINGS.....	14
2.8 INTERVIEWS.....	14
2.9 PRESENTATION OF INITIAL FINDINGS.....	14
2.10 SYNTHESIS.....	15
CHAPTER 3 SCAVENGERS AND WASTE RECYCLING.....	16
3.0 INTRODUCTION.....	16
3.1 HISTORY OF SCAVENGING.....	17
3.1.1 Scavenging Populations.....	18
3.1.2 Role of Gender.....	18
3.1.3 Migration.....	19
3.1.4 Household Size and Housing.....	20
3.1.5 Education.....	20
3.1.6 Working Conditions.....	21
3.1.7 Health.....	21
3.1.8 Financial Aspects.....	22
3.1.9 Social Status.....	23
3.1.10 Self-Perception and Aspirations.....	23
3.2 SCAVENGERS AND THE CYCLE OF WASTE MANAGEMENT.....	25
3.2.1 Solid Waste Management Systems.....	25
3.2.2 Street Scavengers.....	27

3.2.3 Collection Crews.....	28
3.2.4 Dump Scavengers.....	29
3.2.5 Middle People.....	31
3.2.6 Factories.....	33
3.2.7 Benefits of Scavenging.....	33
CHAPTER 4 CASE STUDY OF SMOKEY MOUNTAIN.....	36
4.0 INTRODUCTION.....	36
4.1 HISTORY 1930-1987.....	36
4.2 EXISTING CONDITIONS.....	39
4.2.1 Geography.....	39
4.2.2 Living Conditions.....	39
4.2.3 Housing.....	41
4.2.4 Water.....	42
4.2.5 Electricity.....	42
4.2.6 Transportation.....	42
4.2.7 Health.....	43
4.3 SOCIO-DEMOGRAPHIC PROFILE.....	44
4.3.1. Demographic Profile.....	44
4.3.2 Migratory and Residential Profiles.....	45
4.3.3 Level of Education.....	45
4.3.4 Recreation.....	46
4.3.5 Religion.....	46
4.4 ECONOMIC PROFILE.....	47
4.4.1 Dependence on Scavenging.....	47
4.4.2 Employment Rates and Means of Payment.....	48
4.4.3 Income Levels.....	48
4.4.4 Skills.....	49
4.5 COMMUNITY ORGANIZATION.....	49
4.6 SUMMARY.....	51
CHAPTER 5 THE PLANNING PROCESS.....	52
5.0 INTRODUCTION.....	52
5.1 ASSUMPTIONS UNDERLYING SOLID WASTE MANAGEMENT SYSTEMS.....	52
5.2 ATTEMPTS TO EMPOWER SCAVENGERS.....	55
5.3 HISTORY OF THE TASKFORCE ON WASTE MANAGEMENT.....	57
5.4 STEERING COMMITTEE ON SOLID WASTE MANAGEMENT.....	58
5.4.1. Technical Elements.....	60
5.4.2 Financing Requirements.....	61
5.4.3 Health and Environmental Elements.....	61
5.4.4 Socio-Economic Impacts.....	62
5.5 TECHNICAL COMMITTEE ON SCAVENGERS.....	62
5.5.1 Systems Absorption/Technology Transfer.....	63
5.5.2 On-Site Development.....	65
5.5.3 Absorption in Government Low Cost Housing Projects.....	66
5.5.4 Balik-Probinsiya (Go Back to the Province).....	66
5.5.5 Training and Employment.....	66
5.5.6 Law Enforcement.....	67
5.5.7 Community Organization.....	67
5.6 ANALYSIS.....	69

5.6.1 Impacts of Technical Rationality.....	68
5.6.2 Lack of Policy Direction	69
5.6.3 The Knowledge Gap.....	71
CHAPTER 6 COMMUNITY PERSPECTIVES ON THE PLANNING PROPOSALS.....	73
6.0 INTRODUCTION.....	73
6.1 BACKGROUND TO THE PROJECTS.....	74
6.2 THE CITY OF MANILA'S MANILA EXTEND LIVELIHOOD PROGRAM.....	74
6.2.1 Background to the Program.....	74
6.2.2 Skills Training.....	75
6.2.3 Training in Dressmaking and Cosmetology	75
6.2.4 Survey Results	76
6.3 ANALYSIS AND EVALUATION.....	76
6.4 INTRODUCTION TO SEAF.....	78
6.4.1 Training at the CPC	79
6.4.2 Survey Results	81
6.4.3 Evaluation.....	81
6.5 SUMMARY	83
6.6 COMMUNITY PARTICIPATION AND PREFERENCE SURVEY.....	84
6.6.1 Survey Results.....	84
6.6.2 Analysis and Implications.....	85
CHAPTER 7 PLANNING TENSIONS AND STUDY RECOMMENDATIONS	91
7.0 INTRODUCTION.....	91
7.1 MAJOR TENSIONS	91
7.1.1 Metropolis vs. Community.....	91
7.1.2 High Technology vs. Informal Practices	92
7.1.3 Efficiency vs. Equity	92
7.1.4 Elitism vs. Egalitarianism	92
7.2 IMPLICATIONS FOR PLANNING.....	93
7.3 ACTION POINTS.....	93
7.4 LESSONS	95
7.5 CONCLUSION.....	96
BIBLIOGRAPHY	98
APPENDICES.....	105
1.0 GENERIC LIVELIHOOD SURVEY.....	105
1.1 SUMMARY OF RESULTS: MEL DRESSMAKING SURVEY.....	107
1.2 SUMMARY OF RESULTS: MEL COSMETOLOGY SURVEY.....	111
1.2 SUMMARY OF RESULTS: CPC SURVEY.....	114
2.0 COMMUNITY SURVEY.....	118
2.1 RESULTS OF THE COMMUNITY SURVEY.....	120
2.2 ANALYTICAL DETAIL.....	122

LIST OF FIGURES

Figure 1 Scavengers in the Waste Recycling Process.....	18
Figure 2 Existing and Proposed Dumpsites.....	31
Figure 3 Organizational Chart of the Solid Waste Management Plan Implementation.....	50
Figure 4 Timeline of Important Events.....	55
Figure 5 Cross Tabulation of Awareness of Plan by Gender.....	122
Figure 6 Spearman's Rank for Preference Question #13.....	123

CHAPTER 1 PLANNING AND PLANNERS

1.0 INTRODUCTION

Planning is a profession with a relatively short history. None the less, during the last century, debates have raged about the nature and efficacy of planning ¹. This Master's Degree Project (M.D.P.) seeks to examine the nature of the planning process, particularly in terms of the underlying values and assumptions held by its practitioners.

In order to examine this process, the plans developed by the Presidential Taskforce on Solid Waste Management for Metropolitan Manila (Philippines) and their socio-economic impacts on the residents of "Smokey Mountain", who presently survive by scavenging through refuse at a local dumpsite, will be analyzed. Since the people affected by the plans are economically disadvantaged and socially despised, this case study provides an excellent opportunity to study the intrinsic tensions between technical, metropolitan-level planning and grass roots community-based planning.

The true nature of this planning exercise cannot be appreciated simply by conducting a cause-effect analysis of the plans and their impacts. Only by unearthing the values and assumptions held by those responsible for the plans can one begin to understand that scavengers are as much victims as beneficiaries of this process. While such an approach is imprecise and based on implication, it yields insights into planning practice and allows for a view from 'the bottom of the heap'..

Finally, this case study is of particular interest to planners who aspire to bring about major social change by empowering those who do not have ready access to the levers of power - wealth, influence and political clout. As such, the author has concluded that, in the case of Smokey Mountain, a technocratic, rationalistic approach has not served the interests of the marginalized or promoted the participation of the inarticulate in the planning process.

The structure of the M.D.P. is designed to take the reader through the following steps. First, the nature of planning will be discussed, giving particular attention to the various interpretations of the role of planners and their relationships to the state and its citizens. Second, the role of

¹ See Friedmann, 1987 for a history of planning and a major treatment of the planning traditions.

scavengers in the solid waste management systems of developing countries, and the extent and value of informal waste recovery processes will be explored. Third, the physical and social plans of the Steering Committee on Solid Waste Management and the Technical Committee on Scavengers will be presented. The author will demonstrate the effects of implicitly and explicitly held beliefs on both the planning process and the contents of the resultant plans. Fourth, the effects of the plans on the community will be detailed in order to establish a relationship between values, plans and impacts. In particular, existing approaches to the provision of alternative means of livelihood and the participation of the residents in the planning process will be evaluated. Fifth, the major tensions in planning practice, as exemplified by this case study, will be reviewed. Recommendations regarding issues to be resolved and steps to be taken in the case of Smokey Mountain will be provided. A discussion of lessons to be learned by planners will conclude the study.

It must be noted that due to the researcher's limited stay in Manila (May to August, 1988), the broader political climate of the Philippines will not be featured in this document. The author recognizes that this planning exercise did not take place in a political vacuum, however, she was not privy to many of the political pressures acting on the Taskforce. From her lay perspective, the Taskforce on Solid Waste Management was a high priority project, as indicated by its immediate funding and Presidential sanction.

One can only speculate on the political motivations underlying the creation of the Taskforce. For example, inefficient garbage collection services resulted in mounds of refuse lying on the streets. This helped to create the impression that Manila was an unsightly, smelly place - hardly a picture conducive to increasing tourism and foreign investment². Also, Smokey Mountain has received a great deal of international media attention and by cleaning it up the Aquino administration would enhance its reputation as a caring democracy both at home and abroad³. Finally, the Taskforce fits in with the President's stated commitment to helping the urban poor. From a political perspective, it was a safe, practical project which would receive support from all sectors of society.

² See Presidential Taskforce on Solid Waste Management, 1987.

³ See Fallows, 1987; Anon., Calgary Sun, 1988e.

The Taskforce itself was subject to other types of pressures such as the availability of international aid tied to waste disposal machinery, and infighting between agencies over jurisdiction⁴. Members of the Taskforce may have been greatly influenced by other factors the researcher was not aware of. To this extent, this study is incomplete and begs further inquiry into the political culture of the Philippines.

1.1 WHAT IS PLANNING?

In its most generic sense, planning is the future-oriented practice of matching means with desired ends, or linking knowledge with action. Beyond this definition, however, there is great disagreement about the true nature of planning practice and the relationship of the planner to the state. In broad terms, planners fit into two categories, those involved in societal guidance and those committed to social transformation. The former work through the state to bring about systemic change while the latter focus on political action to promote systemic transformation (Friedmann, 1987). Let us now examine how three distinct schools of thought deal with the major questions surrounding planning practice.

1.1.1 Rational Planning

In this model, planning is perceived to be a supremely rational and apolitical activity: problems are objectively understood and alternative solutions are impartially assessed. (Lichfield & Kettle, 1975). Rationality allows for logical consistency between means and ends so that, given sufficient information and analysis, all the reasonable means to a certain end can be determined. The process is based on logical positivism (Mannheim, 1936, Faludi, 1973). Typically this planning formula follows these rational steps: identify the problem, design alternative solutions, compare and evaluate the alternatives, develop a plan of action and maintain the plan (Harper and Stein, 1987).

⁴ The Taskforce was responsible for devising a solid waste management plan for all of the four cities and 13 municipalities constituting Metropolitan Manila. However, the City of Manila claimed its right to oversee development for Smokey Mountain, as the dump lies within the City proper. Further, in early 1988, the City seized the building developed by the Taskforce for scavenger retraining and claimed it as its own.

In this framework, planners are not involved in either setting the ends or choosing between the stated objectives (Meyerson and Banfield, 1955). The planner's advice stems from fixed ends, already predetermined by her/his political representatives. In this case, planners are technicians who determine the most effective methods to implement political decisions, and therefore, their advice can only be questioned on empirical or logical grounds (Reade, 1985). Such planners perceive communities as channels of socialization. The purpose of citizen participation is the improved integration of people into society and the preservation of the dominant class interest. Participation is successful if it contributes to stability, develops civic responsibility and promotes communication between those who govern and those who are governed (Thornley, 1977).

The major failing of this model is that it does not recognize that the choices of ends and/or means are inherently value-laden. There is no such thing as a value-free judgement: all decisions are based on certain assumptions and priorities. For example, some bureaucratically or politically expedient policies may exist primarily to perpetuate existing class interests, and consequently, will further disadvantage the poor. Further, while expounding the virtues of rationality, the model conveniently neglects the value of social goods such as social justice and freedom.

1.1.2 Social Learning

The social learning school developed out of an attempt to reconcile the contradictions between theory and action. Proper understanding, it was felt, would lead to appropriate action. In this model, the goal of planning is understood to be the change or redirection of human behavior through social manipulation. The results of the social investigations, via public participation, are used to expedite planning and decision making processes. In this sense, planning is seen as an interactive, educational process which forms an integral part of the democratic framework (Friedmann, 1973).

Planners are viewed as social learners who develop planning strategies in concert with the 'client-actors'. There is much dialogue between the planner and the client group and means of interaction are non-hierarchical and experimental. By gaining a full appreciation of the clients' perspectives, the planner can more effectively fulfill a societal guidance role.

The drawbacks of this approach are multifaceted. First, the theory avoids examining the bases of power and decision-making and, therefore, bureaucratic paternalism and a uniform social interest are assumed. The fact that poor people typically have less access to information and less time to devote to civic matters is skirted. Second, since the planner is only concerned with improving the existing system; s/he perpetuates its inherent inequalities. While such a planning model appears to have a democratic, human face, the social learning approach is still based on maintaining the status quo.

1.1.3 Social Mobilization

The social mobilization school doesn't begin with goals and objectives, but with criticism. Its ideology focuses on the dispossessed and advocates social solidarity, political analysis and a commitment to fundamental change (Habermas, 1975). Radical planning focuses on the structural problems associated with the capitalist system. The planner integrates theory and action towards the long term goal of social transformation by working directly with local organizations in order to promote self-reliance and mass mobilization (Friedmann, 1987).

A radical planner does not work for a 'homogeneous public interest'. Rather, s/he seeks to promote equal access to the bases of social power such as money, time and education (Davidoff, 1965). The government is understood to be "a 'terrain of struggle', in which different class interests contend over the direction of development and the distribution of the related costs and benefits" (Friedmann, 1987: 408,409). Consequently, this type of planning is confrontational; political struggle is deemed necessary in order to transform the existing power relations and to create a new egalitarian order.

Given the planner's adversarial role, this model is difficult to integrate into planning structures designed to contain conflict and preserve the status quo. None the less, social transformation can occur on a small, project-specific scale if one accepts that the planner is simply attempting to empower groups of people to exercise their democratic rights. Activism that reflects grass roots collectivism is clearly possible and desirable in an evolved and tolerant political culture.

1.2. PLANNERS AND VALUES

These various approaches to planning have been described in order to determine which model best represents the approach taken by the planners involved in the Manila case study. It is the author's opinion that the planners in Manila have internalized the values and beliefs associated with the rational planning school. Given planners' general tendencies to hide behind a veil of technical rationality, it is imperative to question the assumptions and values underlying their actions. In fact, "the concealment of values, by tactical ambiguity or denial - which takes the form of a retreat into the impartial, dispassionate, value-free scientific stand - threatens moral integrity" (Rein, 1981: 309). These beliefs and assumptions must be critically explored if the plans are to be understood in their broader context.

To begin, it must be noted that in most cases planners do not share a similar social status with those for/with whom they plan. "Planners are a distinct - and highly influential - political group" (Robertson, 1984: 93). Consequently, their interests seldom reflect the interests of the poor and disenfranchised. Planners also have higher than average levels of education and tend to be politically well-connected (Singer, 1971). According to some, they belong to a fraternity of planners, the 'Technocratic Internationale' (Papanek, 1972).

Nevertheless, recent precedents have been set by disillusioned planners searching for more sensitive and effective means of practicing their profession. For example, in the case of the self-help housing movement, the rejection of modern western values regarding housing sizes, materials, and standards led to a renewed reliance on local materials, culturally sensitive designs and appropriate funding strategies (Angel and Benjamin, 1976; Beier, 1984; Harrison, 1983; Okpala, 1987; Payne, 1977; Tanphiphat, 1980). Similar criticisms of hidden biases were levelled by those questioning the role of women in development planning (Anad, 1984; Huston 1979; Mohammadi, 1984; Moser and Chant, 1986; Niemann, 1985; Rogers, 1980). These authors demand that male assumptions about the needs and desires of women be challenged and that the perspectives of women become fully valued and integrated into all aspects of planning.

Such examples demonstrate that the importance of the beliefs and views of planners, and consequently the models within which they operate, cannot be underestimated. Rein makes the point that "the study of policy is most revealing when it examines afresh the critical assumptions on which action proceeds" and that "their [planners'] most demanding task is the identification of their own values, along with an understanding of how these values blatantly and subtly bias analysis" (Rein, 1981: 308, 309).

1.3 VALUES AND PLANNING IN THE CONTEXT OF SMOKEY MOUNTAIN

As noted earlier, it is the author's opinion that the planners involved with the Presidential Taskforce on Waste Management have adhered to the tenets of the rational planning model. Therefore, they view planning as a technical exercise. Policy directives are supplied by politicians and social plans emanate from physical considerations. There are no significant attempts to promote the self-sufficiency of the community or to integrate its members into the planning process. In summary, the relationship of the planners to the community members is one of patron and client.

As is the case in many North American planning exercises,

[t]oo often, planning and services delivered by our institutions and professionals treat people as if they are targets and objects, instead of treating them as subjects being placed in charge of their own immediate environment and providing them with the essential technological know-how (Campfens, 1987: 6).

The impacts of this approach, on both the plans and the community members, will form the basis of this study. The author speculates that, in this planning context, the values hidden in the plans are more insidious than the plans themselves, since the assumptions underlying them have gone unquestioned. It is hoped that this paper will enable students and practitioners alike to re-evaluate their biases and seize opportunities, such as those presented in the case of Smokey Mountain, to serve the public as enabling practitioners.

CHAPTER 2 METHODOLOGY

2.0 INTRODUCTION

Scavenging is a complex activity; one that has social, economic and environmental dimensions. As such, a variety of methods must be used to gain an understanding of the role of scavenging in the context of waste recovery and the nature of scavenging communities such as Smokey Mountain. In this chapter, the methods used by the researcher will be presented in chronological order.

In order to gain a first-hand knowledge of the people of Smokey Mountain, the author integrated both qualitative and quantitative elements into her research design. However, while information on the means of survey sampling and the methods of statistical analysis will be provided in this chapter, the author will stress the non-quantifiable aspects of her participatory research.

2.1 LITERATURE REVIEW

Prior to arriving in the Philippines in May 1988, the researcher spent approximately four months reviewing the literature on the informal sector in general, and scavenging communities in particular. As the body of information on scavengers is very limited, this rudimentary review proved to be both difficult and time-consuming.

While in the Philippines, additional time was spent searching for Philippine-specific materials on scavenging and community participation in planning. These efforts met with limited substantial success but, nevertheless, Philippine references are cited throughout the document.

2.2 METROPOLITAN MANILA COMMISSISON (MMC) ORIENTATION:

While in Manila, the researcher worked out of the MMC's office. The first two weeks were spent doing a content analysis of the proposed plans for the new metropolitan waste management system. As all of the information was not located in one central office, the researcher visited several departments, such as the Department of Social Welfare and Development and the Presidential Management Staff, looking for relevant data. Initial interviews with members of the

Technical Committee on Scavengers resulted in permission to attend all Technical Committee meetings. In keeping with the government's stated 'open-door' policy, the researcher was given free access to all existing files.

2.3 MEETINGS WITH SOCIAL WORKERS

Meetings with the social workers responsible for Smokey Mountain were arranged in late May. Case files of representative scavengers were informally discussed and the workers' views about the situation at Smokey Mountain were solicited. The social workers arranged the first site visit to Smokey Mountain. One of the volunteers from the community escorted the researcher throughout the area and introduced her to the community leaders.

The social workers were asked about the most appropriate means of gathering data on Smokey Mountain. Consequently, it was recommended that the researcher have someone capable of translating Tagalog to English accompany her on site visits. The social workers also felt that while face-to-face surveys were preferable, surveys written in Tagalog were appropriate for the community. As the researcher could not afford to train and pay persons to administer face-to-face surveys, a written, sample survey format was chosen. See section 2.6 for the detailed survey methodology.

2.4 SITE VISITS

On average, the researcher spent 15 to 20 hours per week at Smokey Mountain. In total she conducted over 12 weeks of field research from May to August 1988. In May, much of her time was spent observing how people lived, making initial contact and gaining people's trust. By June she began to question people about their knowledge of, and response to, the plans to close the dump.

Meetings with community associations such as the Women's Association of Smokey Mountain and the Scavengers Association were conducted. During these meetings, the members were asked about their perceptions about scavenging, and their views regarding the proposed metropolitan waste management plan and the community's involvement in the planning process. Only first names were

used in order to protect the identities of those voicing their concerns. Father Ben Beltran, the local priest, was also interviewed due to his 10 year involvement with the residents of Smokey Mountain.

In order to focus on the community-relevant aspects of the plan, the author asked many of the informal and formal leaders at Smokey Mountain about their 'research priorities'. The researcher explained that her purpose was to echo the residents' concerns to the government. The primary concerns of the leaders related to the threat of eviction and the potential loss of livelihood. Consequently, the subsequent focus on livelihood was, in effect, chosen by the community leaders.

Surveys met with popular approval since it was felt that the government would be more likely to listen to a foreigner, and her 'facts', than to the community people themselves. Such discussions led to the development of surveys of existing livelihood programs and community preferences. Support for the surveys was also demonstrated by the willingness of the residents to volunteer to distribute and collect the surveys. The Katipunan, the large community association, also lent official support to the survey work.

2.5 LIVELIHOOD PROGRAMS

Several methods were used to obtain the information necessary to evaluate various livelihood projects at Smokey Mountain. First, the researcher observed Manila Extends Livelihood's (MEL) dressmaking and cosmetology training sessions and the Self Employment Assistance Foundation's (SEAF) community production centre. Second, both formal and informal interviews with the participants in the projects were conducted in order to determine what types of questions should be asked in the subsequent surveys. Third, surveys of the participants involved with the livelihood projects were undertaken. Fourth, further observation of the trainees' lifestyles was used to validate the data obtained by the surveys. Finally, interviews with social workers and agency managers were conducted in order to understand the administrators' views on the planning and implementation of the projects.

2.5.1 Background to the Surveys

Lists of all of the participants in the livelihood programs were obtained from the sponsoring agencies. All of the participants were contacted, via a memo, and asked to participate in the surveys. The social workers arranged for volunteers to help the researcher deliver the letters as none of the residents had addresses per se. Rather than attempting to arrange one-on-one interviews, meetings were arranged in centrally located places.

The surveys were written in Tagalog and, therefore, may have excluded a small minority of illiterate or non-Tagalog speaking participants⁴. Research into the participants' profiles, indicates, however, that all of the people had some elementary school education. Therefore, the likelihood of willing participants not being able to take the surveys due to lack of reading and writing skills appeared to be quite small.

Unfortunately, the results were not as reliable as might have been hoped for. For example, there was a good deal of sharing of responses, despite admonitions not to do so. This may have caused the answers to be more homogeneous than they might have otherwise been. Also, some of the women did not take the surveys. Nevertheless, the number of respondents was high: over 80% of the program participants of both SEAF and MEL. It is assumed that these responses were largely representative of the entire populations. See Appendix 1 for a translated version of the survey instrument and complete survey results.

Two programs of the Institute of the Protection for Children, namely the Piggery Cooperative and the Fluorescent Light Cooperative, were also evaluated. However, as the programs only attempted to supplement existing income and not lead to or provide alternative sources of income, the results of these surveys are not included in the body of this document.

⁴ The FEED study (1988) indicates that the population is fairly homogeneous and most people are accustomed to Tagalog, the official language of the Philippines. For example, 50% of the respondents came from the Visayas (the northern region of the Philippines), while 48% came from Luzon province (the province in which you find Metropolitan Manila.) Further, as 41% of the respondents were born in Metropolitan Manila, it is very likely that there was no significant Tagalog language barrier.

2.6 COMMUNITY SURVEY

In order to assist in determining whether the government's plans reflected the needs and desires of the residents, a sample survey of community members was conducted. The purpose of the survey was to obtain preference structure information on the community, and to discover the nature and extent of residents' involvement in the planning process. The main intent was not to implement a scientifically rigorous survey, but to gain a broad understanding of residents' opinions.

The survey consisted of 21 questions and was roughly divided into two parts. The first part was designed to gather basic demographic information and to gauge people's knowledge and support of the proposed plans. The second part was developed in order to determine people's priorities for the future development of the area. There was a fairly even mix of closed and open-ended questions. A translated copy of the survey instrument is included in Appendix 2.

The community survey was conducted during the months of July and August 1988. Community volunteers were solicited to carry out the survey and were briefed on methods of survey implementation. The volunteers were selected from among members of the Katipunan and were therefore considered responsible and trustworthy. The surveys were distributed to households in both Barangays. The sampling procedure involved a combination of the volunteers' judgement and an effort to evenly cover all of the various parts of Smokey Mountain.

Attached to each survey was a letter of introduction which explained the purpose of the study. The households were able to choose their own respondents; family heads were purposely not targeted to fill out the surveys in order to allow for a variety of respondents. As the researcher wanted to obtain a representative sample of at least 10% of all households, 450 surveys were printed. It was correctly assumed that a portion of this number would be lost or not returned. In total, 350 surveys were completed and returned to the researcher. This sample is significant as it represents 11.6% of all households in Smokey Mountain.

2.6.1 Limitations

As in the case of the livelihood surveys, the community surveys were written in Tagalog and, therefore, may have excluded some illiterate or non-Tagalog speaking participants. However,

the likelihood of willing participants not being able to take the surveys due to lack of reading and writing skills appeared to be quite small.

Since community volunteers distributed the surveys, there is a good probability that they tended to solicit relatives or neighbours of long-standing and, therefore, certain socio/cultural groups and geographic areas of the community may have been somewhat over-represented. Also, because the surveys were self-administered, the likelihood of shared responses is quite high. Finally, as the surveys were translated twice, there is a possibility that some of the original contents were lost or distorted.

All of these limitations lead the researcher to suggest that the survey results probably cannot be extrapolated to confidently represent the views of all of the residents of Smokey Mountain. None-the-less, the results are valuable in that they do provide a broad cross section of community views. The results were also tested against a body of literature and personal observation.

2.6.2 Data Analysis

Once the data had been translated into English by the staff of the MMC, the results were tabulated. Percentages were used to calculate the distribution of responses. In some cases a simple correlation between two questions was calculated in order to determine whether variables such as gender or location (Barangay) had an impact on the subsequent responses.

On the preference question (#13), respondents were asked to rank seven variables from 1 to 7 in order of priority, with 1 being the most preferred variable. The responses were analyzed by using Spearman's rank correlation test.

To verify whether these results varied with the results obtained by random selection, a Chi² test was used. Using the measure of 5% significance, it was determined that the distribution of responses was significantly different than if all of the variables were preferred equally. From this test it becomes clear that the results were significant. See Appendix 2 for complete survey results.

2.7 ATTENDANCE AT TECHNICAL COMMITTEE MEETINGS

Meetings of the Technical Committee on Scavengers were normally held every two weeks. With the exception of one meeting, the researcher attended all 6 of the Committee's meetings from the beginning of June, 1988 until the end of August, 1988. She also attended 4 sub-committee meetings on on-site development and livelihood. These sub-committees did not meet regularly.

The researcher did not actively participate at the committee meetings due to her guest status. None-the-less, she kept informed of the deliberations of the committee and was able to observe the discussions around the proposed plans. She received all of the minutes of the meetings.

2.8 INTERVIEWS

The researcher also attempted to conduct a survey of members of the Technical Committee on Scavengers, however, there were too few responses to merit including the results in this document. None-the-less, 7 out of 11 of the Committee members were formally interviewed; their views, where pertinent, are presented in Chapters 6 and 7. Standardized interview questions were not asked of all of the members. They were only asked questions that related directly to their particular area of responsibility. Some of the committee members, particularly those dealing with livelihood, were interviewed several times. Records of all of the interviews were kept.

2.9 PRESENTATION OF INITIAL FINDINGS

A presentation of the researcher's work before the Technical Committee on Scavengers was scheduled for the end of August, 1988. It was anticipated that feedback from this session would form an important methodological component. However, at the last minute, the Chairperson cancelled the meeting and there was no other opportunity to present the researcher's findings before she left the Philippines. A summary report of the findings, along with overheads, were left with the chairperson of the Technical Committee on Scavengers. Members of the committee were requested to respond in writing to the observations and recommendations found in the report, however, no responses were received.

2.10 SYNTHESIS

Upon returning to Canada, the researcher wrestled with how best to understand and communicate the information she had gathered. Only by critically examining the assumptions and values underlying the planning process did she begin to 'make sense' of the plans. Her social learning experience gave her insight into the practice of rational planning and caused her to adopt a dual focus on 1) the overall nature of the planning framework, 2) the plans and their impacts on the community. This MDP reflects the effects of participatory research on a student attempting to better understand metropolitan planning in a third world setting from the perspective of the the bottom of the heap.

CHAPTER 3 SCAVENGERS AND WASTE RECYCLING

3.0 INTRODUCTION

In November 1987, the Presidential Taskforce on Solid Waste Management was created. The Taskforce was commissioned to develop a solid waste management plan in order that Metropolitan Manila would become a clean environment "free from hazards posed by open dumpsites and by garbage scattered everywhere"; a place where "even scavengers are provided with decent livelihood" (Presidential Taskforce on Solid Waste Management, 1988a). In particular, the Technical Committee on Scavengers was given the responsibility of providing all scavengers with alternative sources of income.

In order to complete this task, the author expected that the planners would have a thorough understanding of scavengers - their numbers, lifestyles and needs. Interviews with members of the committee revealed, however, that no research on scavengers in developing countries had been conducted and no estimates of the numbers of types of scavengers in Metropolitan Manila were available. Consequently, in order to inform the planning process, a profile of scavengers and their role in the solid waste management system is outlined in this chapter. All of the components of the solid waste management system are identified and assessed in light of the proposed plans. In addition, the contributions of scavengers to the recycling industry are highlighted in order to demonstrate the value of resource-recovery. Information on Smokey Mountain and how it compares with other scavenging communities will be provided in Chapter 3.

Since most of the planners involved with the project are upper-middle class Filipinos who have no direct contact with scavengers and have not chosen to spend time at Smokey Mountain, such data should be of benefit to them ⁵. For example, the information will challenge some members of the Technical Committee who have openly stated that scavengers are lazy and unmotivated ⁶.

⁵ Most members of the Technical Committee on Scavengers have only made one brief visit to Smokey Mountain.

⁶ See Chapter 5 for further examples of underlying assumptions.

It seems rational to assume that planners should be thoroughly acquainted with the areas for which they are planning and that plans must suit the constituents for which they are designed. With this in mind, let us explore the lives of scavengers in several developing countries.

3.1 HISTORY OF SCAVENGING

Originally, the term scavenge meant to 'scrape dirt from the streets'. A scavenger was a person who removed dirt from public places. In 19th century England, before the development of formal municipal waste removal, cities licensed scavengers who were able to make use of whatever goods they found (Furedy, 1984b). In India, there have long been two different types of scavengers, those who cleaned excreta from households and public places and those who cleaned the streets. The latter were known as sweepers. Currently, the term 'scavenge' refers to the activity of extracting discarded goods from public places.

Scavengers have long been perceived as the lowliest of the poor. Keyes describes them as "an object of admiration to a few, of pity or revulsion to most" (Keyes, [1974] as quoted in Furedy, 1984b), while Lomnitz describes these people as "the hunters and gatherers of the urban jungle" (Lomnitz, [1977] as quoted in Furedy, 1984b). The other local names given to scavengers reflect how they are viewed. In Cali, Colombia they are called 'vultures' (Birkbeck, 1979), in Tokyo, Japan, they are 'ants' (Taira, 1969), and in Mexico City, Mexico, they are referred to as 'flies' (Vogler, 1987c). Since in most cities scavenging is banned, scavengers are both outlaws and outcasts.

While it is difficult to characterize the history of scavenging in developing countries, the case of Cali outlines some common historic themes. In the 1950's, garbage pickers searched for items such as cutlery and clothes which were sold to low income families. Sometime later, with small merchants requiring tins and bottles, a market for recovered materials developed. Finally, with the arrival of large scale industry came the demand for recycled materials. This demand was heightened by difficulties acquiring virgin materials from other centres. The supply of raw materials to large-scale industries now represents the bulk of scavenging activity (Birkbeck, 1979). With an increase in

wealth comes an increase in the volume and value of waste. Consequently, industrial and economic growth has made scavenging not only possible, but profitable on a large scale.

3.1.1 Scavenging Populations

Establishing the global number of people involved in scavenging is impossible, but recent studies indicate that scavengers represent a significant portion of third world urban populations. In 1984, 700 scavengers lived in Bangkok, Thailand (Butsapak, 1984). In 1985, Bandung and Cimahi (Indonesia) recorded 1,000 families who depended on scavenging for their source of income (Poerbo and Supardi, 1985). Jakarta (Indonesia) presently supports 12,000 scavengers (Anon., Jakarta Post, 1988d). In 1982, 5,000 scavengers lived on the 160 hectare open land fill in Mexico City (Cointreau, 1982). It has recently been discovered that not only do scavengers exist in China, their numbers are increasing rapidly (Furedy, 1988c).

It must be emphasized that scavengers only represent one link in the recycling chain. Consequently it seems safe to assume that much larger numbers of people are directly involved in the informal recycling of materials.

3.1.2 Role of Gender

Women play an important role in the recycling industry. Their contribution to waste recovery must not be overlooked. In North Africa, for example, women can be seen sitting on heaps of refuse, extracting cotton rags and sorting them by colour (Vogler, 1987a). In Dhaka (Bangladesh), women are employed by scrap dealers to separate metal scrap into six different grades (Vogler, 1986b). Indian women are employed by small merchants to sort recyclables and sell them to dealers (Vogler, 1988). In the Philippines, female dealers and middle persons are not uncommon.

The ratio of male to female pickers has varied over time from dump to dump. In Cali, 69% of the scavengers were male (Birkbeck, 1979). In Kathmandu (Nepal), an equal number of men and women were scavenging at the dump. In this case, "the females were found more actively engaged in income generating than the males" (Khyaju, 1986). In the Inayawan dump in Cebu (Philippines), males represented 55% of the pickers. During all three shifts, the men earned more per hour than the women since the women had to divide their time between scavenging and child care (Cruz, 1982b).

In Bangkok, 53% of the scavengers were women, and 12% were children. In all three of Bangkok's landfill sites, more women and children were found picking waste than men (Butsapak, 1984). In Cebu, Philippines, 60% of the school-aged children were scavenging and did not attend school (Fernandez and de la Torre, 1986).

3.1.3 Migration

It is not surprising that most scavengers do not originate from the cities where they work. In the case of Bandung, virtually none of the scavengers were born in the city. Their places of origin were widely distributed (Poerbo and Supardi, 1985). In Cali, 61% of the pickers were from outside of the city (Birkbeck, 1979). In Cebu, more than one-third of those surveyed were from the city (Fernandez and de la Torre, 1986). Of those born in Cebu, all were children of migrants employed in the informal economy. The parents themselves had relocated to the city when their previous occupations as fishers or farmers could not sustain their families.

Why did they turn to scavenging? A survey of Kathmandu scavengers reveals that 86% had no other source of income upon entering the city and they had to turn to scavenging (Khyaju, 1986). Such unskilled rural migrants could not find well-paying jobs in the formal urban economies. In the case of Bandung, most scavengers were originally landless agricultural labourers seeking better lifestyles (Poerbo and Supardi, 1985).

In every scavenging population surveyed, there were virtually no opportunities for employment outside of scavenging; as a result, most of the people had been scavenging for a long time. In Cali, for example, 46% had been scavenging for over 10 years (Birkbeck, 1979). In Cebu, almost 90% of the scavengers have been plying their trade for 10 or more years (Fernandez and de la Torre, 1986). This suggests that communities of scavengers have become firmly established in their urban settings. Furthermore, since ties to their rural communities have dissipated, few of their members show any desire to return to the country (Papanek, 1975).

The modern example of China is instructive. The numbers of scavengers are increasing due to the following trends: first, new economic policies are displacing some traditional means of earning income; second, there is more freedom to migrate from the poor rural areas to the cities; third, an

increase in the standard of living has resulted in the disposal of high value goods; fourth, while metals are being extracted by municipal collection centres, other materials such as plastic, paper and glass are still freely available to the scavengers (Furedy, 1988c).

Scavenging reflects a much larger problem of rural-urban migration, which is of great concern to urban planners. In Jakarta, for example, planners were quick to recognize the danger of officially sanctioning scavenging. The planners asserted that improved working conditions for scavengers should not be interpreted as license or incentive to migrate to the large urban centre (Anon., Jakarta Post, 1988c).

3.1.4 Household Size and Housing

Scavenging families have normally included 5 to 6 persons per household. This pattern has held true in Cebu (Fernandez and de la Torre, 1986), Kathmandu (Khyaju, 1986) and Bangkok (Butsapak, 1984). Most scavenging households lived either in slums or directly on the landfill sites. In Cali, only 39% of the scavengers owned their own houses (Birkbeck, 1979). In Bangkok, 13% of the scavengers owned houses and land. In Kathmandu, this number was much smaller, with only 2% owning their own homes. The rest either rented or squatted on public land (Khyaju, 1986). In Cebu, there was no household ownership. The shanties were all located in squatter areas which had poor sanitation and posed a fire hazard (Fernandez and de la Torre, 1986).

3.1.5 Education

Levels of educational attainment among scavengers were generally very low. In Cebu, 37% had no schooling and 38% had some primary education. Most of the scavengers' parents had no formal schooling (Fernandez and de la Torre, 1986). In Cali, nearly half of the waste pickers had not attended school past grade 2 and had difficulties reading or writing. The lack of education seemed to reflect a family's financial inability to send its children to school (Birkbeck, 1979). In Bangkok, where 80% of the scavengers had finished primary school, there were a few people (8%) who had attended high school and technical school, but were unable to find employment outside of the dump (Butsapak, 1984).

3.1.6 Working Conditions

Working conditions on the dump-sites surveyed in this chapter were uniformly dangerous. For example, none of the sites had toilets or bathing facilities for the scavengers to use during or after work. While there were food stalls near the dump areas, the food was not cooked or served in sanitary ways.

Poor working conditions ranged from harmful materials, such as toxic waste to perpetual stench. Since the scavengers worked with decaying matter, they were constantly exposed to the risk of infectious disease. During the rainy season, the dumping areas become flooded and the scavengers had to wade in polluted water. While boots were commonly worn, the scavengers seldom wore any protective gear such as gloves. In these types of deplorable conditions scavengers worked between 8 and 12 hours per day (Butsapak, 1984).

3.1.7 Health

Scavenging is an occupation with many associated health hazards. Infant mortality rates were always higher among scavenging communities than among the general population (Khyaju, 1986). In the Inayawan Dumpsite, Philippines, almost all of the scavengers surveyed complained of coughs, fevers or colds. Virtually all of the female scavengers (94.1%) suffered from malnutrition as indicated by their dizziness and lack of appetite (Cruz, 1982a). In Cebu, 95% of the scavengers surveyed said that they had been ill during the year prior to the interview. The most common types of diseases were intestinal and respiratory (Fernandez and de la Torre, 1986).

A Kathmandu study concluded that most of the diseases found among scavengers could readily be related to their unsafe working conditions. Of the 66 persons surveyed, all but 2 were affected by more than one disease. Since leg wounds (81.8%), followed by wounds to the hands (69.6%) were the most common injuries, it appears that most scavengers do not have appropriate outerwear (Khyaju, 1986).

A Bangkok study concluded that constant exposure to sun and rain caused scavengers to frequently catch cold. The prevalence of muscle tension disease, particularly in the lower back area,

was presumed related to strenuous lifting. Long term skin disorders were common due to constantly wet and unsanitary working conditions (Butsapak, 1984).

Given current disposal practices, a major threat to the scavenger's health comes from unincinerated hospital wastes. Dr. Furedy, while observing the Dhapa dump in Calcutta stated that:

People go to the section where hospital waste is dumped: they get the blood-soaked cotton swabs, wash them and use them for industrial (rags) or stuffing pillows and mattresses. In the waste I'm sure there are very hazardous things such as radioactive material and syringes". (Anon., Globe & Mail, 1988)

3.1.8 Financial Aspects

While authors such as Keyes tend to view scavengers as the poorest of the poor, recent research contradicts this position. Although scavengers may not even be earning the legal minimum wage, they are still relatively better off than other segments of the urban poor.

When Papanek wrote his study on the poor of Jakarta in 1975, wastepaper collectors were at the lowest end of the low income groups. The scavengers reported spending 85% of their income on food and cigarettes. In 1972, they earned an average of Rp145 per day (Papanek, 1975). In 1988, however, scavengers reported earning Rp1,500 per day and only spent Rp500 on food (Madjiah, 1988)⁷. This may be attributed, in part, to the increase in industrialization, and to the profitability of the recycling business in general.

In 1982, an Indonesian study discovered that scavengers earned between Rp45,000 and Rp75,000 per month⁸. Scavengers would work until they had acquired a certain amount of money per day and then would stop working (Poerbo and Supardi, 1985). In Poerbo and Supardi's estimation, this 'easy go lucky' attitude signified an acceptable standard of living. In Kathmandu, the average income of a scavenger, in 1985, was Rs 24.00 per day⁹. If her/his income was approximately Rs 9.50 per day prior to her/his arrival in the city, scavenging represented almost a three-fold increase in daily wages. (Khyaju, 1986).

⁷ In 1972, \$1U.S.=Rp 415. In 1988, \$1U.S.=Rp1,729

⁸ In 1982, \$1U.S.= Rp670

⁹ In 1985, \$1U.S.= Rs17.40

Scavengers are "by no means the poorest of Calcutta's poor" since their combined family incomes are appreciably higher than those of other families in the metro area. "They have found, or created, a relatively secure niche at the periphery of the urban economy " (Furedy, 1984b). In Manila, scavengers earn about P50 per day and are well ahead of other urban poor groups¹⁰. For example, a hostess in a theatre only earns P20 per day (Utting, 1987).

The relative remuneration received by scavengers is most striking in the Chinese context. For example, the daily earnings of a family of scavengers is three times the wage of a university professor (Furedy, 1988a).

3.1.9 Social Status

In some countries, scavenging is associated with a particular group of people. In Egypt, for example, the Wahis and the Zarrabs historically have been responsible for the disposal, collection and recuperation of waste. The two groups represent exclusive social networks tied by occupation, kinship and home (Vogler, 1986a).

In India, scavengers and sweepers are held in the lowest possible regard (Harit, 1972). The cast of the untouchables is responsible for the performance of unclean activities, such as those associated with waste removal. In 1981, 81% of Bhangis were still scavengers (Doshi, 1981). Consequently, in Calcutta, the scavengers of the Dhapa dump are almost exclusively from the untouchable caste.

In Kathmandu, this caste rule has been broken. It was discovered, for example, that more than half of the scavengers surveyed were from high caste groups. Only 6% were from low caste groups and, surprisingly, 27.5% were Brahmins (Khyaju, 1986).

3.1.10 Self-Perception and Aspirations

Given the typical social status assigned to the scavenger, it is not surprising that many scavengers have low levels of self-esteem. In Japan, for example, more than half of the rag-pickers surveyed indicated that they felt that their poverty was "due to their personal weakness" (Taira,

¹⁰ In 1987, \$1U.S.=P20.4

1969). Scavengers believe that people have a low regard for their status. Fernandez and de la Torre describe the scavengers' perceptions in the following way:

They are regarded as thieves because of their untidy physical appearance. They are ostracized and criticized for smelling like garbage. They are treated like animals who should be driven away every time they rummage through garbage receptacles. Scavengers are aware that they belong to the lowest or most marginal sector of society and are regarded by the people and the government as 'walking garbage'. (Fernandez and de la Torre, 1986)

This type of condescending attitude is further demonstrated by those instituting programs for scavengers. For example, the Jakarta Post heralded a new program for scavengers which would no longer allow officials to treat scavengers as tramps. None the less, "a sense of responsibility is to be instilled in the scavengers so that the place where they work will be kept clean. For this, more realistic counseling will be provided to the scavengers" (Anon., Jakarta Post, 1988a). This attitude somehow implies that the scavengers have created the dirty environment and are therefore responsible for the sanitation of the land-fill sites.

While scavengers do have a sense of inferiority, they still perceive themselves as persons engaged in legitimate work, and not as homeless loiterers (Poerbo and Supardi, 1985). Scavengers also have aspirations for self betterment. Over 70% of the scavengers in the Inawayan dumpsite expressed a desire to try to earn an income through other means. When asked to make suggestions to the government, 39% requested loans for capital with which to start businesses, and 43% wanted other employment (Cruz, 1982b).

According to Cruz' Cebu study, scavengers are not satisfied with their lives, their occupations or the future prospects for their children. They dream of having other jobs such as becoming drivers or construction workers.

Scavengers desire to get out of their misery. They would like to live comfortably like other people, send their children to school, eat three times a day, clothe themselves well and satisfy other basic needs. They are horrified to think that their children will become professional scavengers like them" (Fernandez and de la Torre, 1986).

When scavengers were asked about what types of occupations they would prefer, they responded as follows: boys wanted to become shoe shiners or car and jeepney washers, while girls wished to become shoe shiners and hat makers; men envisioned themselves being employed as car washers and newspaper vendors, while women saw themselves becoming laundresses, candy makers and vendors (Cruz, 1982a). While these may appear to be modest aspirations, they do indicate that scavengers can outline preferred occupations.

Scavenging is not a preferred occupation, it is a means to an end: survival in a hostile urban environment. While resignation and apathy may characterize such poor populations, one cannot conclude that scavengers are content with their lives and do not wish to make improvements. It is not unreasonable to conclude that if they were provided with a genuine economic alternative, the overwhelming majority of scavengers would gladly leave their street corners and dump sites.

Given this overview of scavengers in general, let us now examine how scavengers fit into the larger framework of solid waste management system.

3.2 SCAVENGERS AND THE CYCLE OF WASTE MANAGEMENT

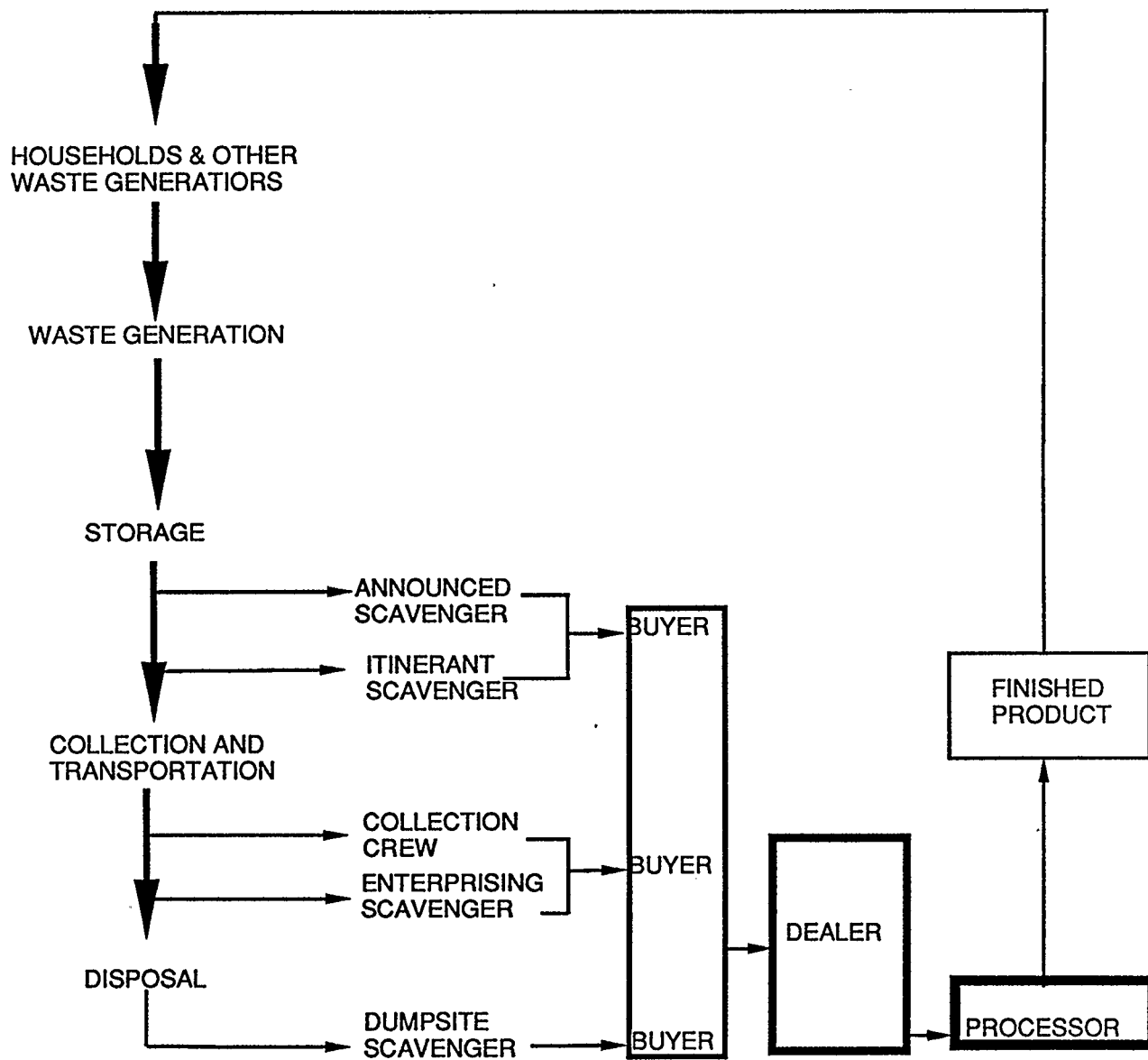
3.2.1 Solid Waste Management Systems

Solid waste management systems formally deal with the collection, transportation and disposal of waste. However, since the systems have many informal inputs and do not end with disposal, the formal and informal approaches to waste management are intimately linked. Generally speaking, waste flows through the following stages:

- 1) generation of waste from residential, commercial, industrial and institutional sources.
- 2) collection, transportation and disposal of waste. Both local government employees and scavengers are involved in this stage.
- 3) salvaging of waste including retrieving, sorting and processing. This activity is mainly undertaken by scavengers.
- 4) trading of recovered materials. Dealers and middle persons buy and sell these goods to businesses. (See Figure 1)

Figure 1

RELATIONSHIP BETWEEN SCAVENGERS AND SOLID WASTE MANAGEMENT SYSTEMS



Source: Metropolitan Manila Commission, 1985a

In the waste recycling process, a variety of materials are collected, sorted and traded through a hierarchical system of scavengers, dealers and factories. Scavengers play a key role in the labour intensive recovery of wastes. It is estimated, for example, that scavengers are responsible for a 10 to 20% reduction of disposed wastes (Poerbo and Supardi, 1985). The system of resource-recovery in developing countries will now be examined in detail.

3.2.2 Street Scavengers

(1) Announced Scavengers

Garbage picking begins at the household level with scavengers who announce their presence by asking for waste materials. In the Philippines, '*Jarrebote*' - "Buy Your Bottles" is the cry of scavengers who tour the streets pushing wooden carts and collecting used bottles from area households. Households and grocery store owners, however, do not generally throw away newspaper, cardboard or bottles. The announced scavenger, therefore, gathers only what is left through carelessness or deliberate kindness.

(2) Itinerant Scavengers

Itinerant scavengers look for materials by picking through garbage bins or roadside dumping areas before the government trucks arrive. Tins, discarded boxes, bits of aluminum, bronze, scrap iron and glass are all collected into either baskets or push-carts. In Manila, when rummaging thorough the waste, the scavengers use sharpened sticks or their unprotected hands.

While some scavengers tend to specialize in certain materials, the pattern of picking largely depends on the availability of goods. For example, in Calcutta, paper pickers frequent the business and commercial districts, while others work in close proximity to the markets where they can collect fruits and vegetables that have been discarded by vendors. Other 'specialists' may focus on retrieving scrap metal from small workshops. Since metal earns a high rate of return, very little is discarded and the competition for scrap metal is keen (Furedy, 1984b).

Scavengers have set patterns of operation. The carts go out early in the morning and are returned by 10:00 a.m. The scavengers leave again at 6:00 p.m. and return at midnight. The heat of mid-day, coupled with collection patterns, makes scavenging unprofitable during the afternoon

(Keyes, 1982). Some scavengers prefer to work at night because there are no flies, and garbage from the commercial and residential establishments has already been deposited.

Recovered items may be sold directly to the public or sold by weight to dealers or factories. Depending on how much they manage to gather, scavengers prefer to sell their scrap every afternoon so that their carts will be empty for the evening's work. As Keyes points out, their poverty robs them of any economic reserves and forces them to sell their materials on a daily basis. This assures the buyers a steady market and restricts scavengers from hoarding and waiting for better prices.

A study of street scavengers in Cebu reveals that the main difference in earnings depends on whether or not the scavenger is able to arrange a cash advance from a middle person. For example, a scavenger with a capital advance can buy directly from households or small businesses. Such a scavenger earned, in 1982, an average of P13.75 per day¹¹. An itinerant scavenger with no capital, in contrast, only earned P7.59/day. In exchange for P50, and the use of a cart, the scavenger must sell her/his goods to the middle person who has extended the credit. In 1982, a typical scavenger collected an average load of 19.56 kg and 26 pieces of cardboard and 16 bottles per day (Cruz, 1982a).

Itinerant scavengers either live in slum areas with other poor people or sleep on the streets. Some use cartons and plastic sheets as their sleeping mats; others curl up in their push carts to protect them from being stolen.

3.2.3 Collection Crews

Collection crews employed by the local government are responsible for the collection, transportation and disposal of garbage. In some Asian cities, garbage is taken to transfer stations where it is dumped. Larger trucks then collect the waste and bring it to the landfill sites.

Before loading the trucks, garbage collectors sift through the refuse and pick out any valuable items. Civil servants then segregate the materials and sell them directly to scrap dealers

¹¹ In 1982, \$1U.S.=P6.80

(Keyes, 1982, Fernandez and de la Torre, 1986, Versnel, 1982). This process subsequently reduces the quantity of scrap available to the dump scavengers.

Cruz maintains that virtually all of Cebu's collecting crews practice salvaging. The total quantity of materials recovered from the trucks, in 1982, was on average, 1,542.35 kg of materials and 263 glass bottles. The contents were valued at P235.75. This amount totaled P51.48/month and represented a 17% increase in the worker's monthly income (Cruz, 1982). Detailed time and motion studies of refuse operations determined that refuse collection crews spent 2 to 6% of their total work time sorting recyclable items (Cointreau, 1987).

Despite these practices, apparently there are no hard feelings between the scavengers and the crew members. This may be explained, in part, by the fact that such practices form a large part of the system of informal arrangements at the dump sites. For example, in Cali, friendly relations are established with the truck drivers in order to get first pickings at the garbage. It is clearly in the scavengers' interest to access the garbage while it is on the truck and before it is dumped and compressed. In exchange for this favour, the picker might give the driver a few pesos or offer to clean out the truck once its contents have been dumped. In Mexico, the men who run alongside the vehicles are derisively referred to as 'flies' (Vogler, 1987c).

It should be noted that the role of the garbage collector is very different in India. Unlike scavenging communities in other countries, employment in the municipal government as a sweeper, truck driver or watchman with the Corporation of Calcutta is an informal prerequisite to scavenging near a dumpsite. Scavenging is conducted by the wives and children of the City employees; the men organize the sorting and sale of the goods during their off hours.

3.2.4 Dump Scavengers

By the time the garbage arrives at the dump it may have already been picked over four times by any or all of the following people: the announced scavenger, the itinerant scavenger, the garbage collector and the enterprising scavenger who has a 'contract' with the collector. Despite

this, large numbers of scavengers still rummage through the garbage from early morning until late at night.

Collection and dumping occur on shifts. Every day the first trucks arrive early in the morning. In the Philippines, the busy dumping times are in the mornings between 7 and 12 a.m. and in the evenings between 7 and 12 p.m. During the afternoon there is a lull. At night people scavenge under kerosene lamps.

The system of scavenging is readily visible whenever fresh loads of garbage are dumped. Even as the refuse is being dumped or shovelled off the trucks, the scavengers search for valuables. There is a sense of competition as people use their bare hands to dig through the refuse. In Indonesia, fixed arrangements determine who is allowed to empty the hand carts and trucks in order to get first crack at the haul. "These arrangements are rather strict, but differ per location and city" (Versnel, 1982).

With the possible exception of Calcutta, scavengers tend to work independently while on the dump. Further, while there is a clear division of labour between the pickers and the dealers, there is no division of labour among the pickers. Each picker separates, sorts and packages all the materials. The types of items that can be retrieved include any of the following: paper, cardboard, scrap metal (aluminum, iron, copper, brass, bronze), bottles, bones, hard plastic, glass, cloth, wood, slippers, plastic sheets and toothpaste tubes.

Each picker marks a part of the area as her/his lot. On this spot the scavengers place their recuperated materials. In some cases, entire families stake their claims. A mother, for example, can form a depot: she will stand guard over large cane baskets into which the children deposit their goods. Older siblings can be seen supervising the work of the younger children.

During the lull in the dumping, the scavengers sort through their booty. Once sorted, the materials are carried to the buyers and sold by volume or weight. Although pickers will tend to patronize certain dealers, there are no formal contracts between pickers and dealers. (Unless, of course, the dealer has advanced the picker some capital or equipment.) The picker has to sell the sorted materials separately, as dealers tend to specialize in only one type of material, such as paper

or metal. Since prices are relatively fixed, the pickers either accept the offered price or resort to dishonest measures. For example, in order to get the best weight for paper, some scavengers wet the paper to make it heavier. Occasionally stones are hidden among the other materials (Birkbeck, 1979).

Scavengers also look for items that will be of use to their families. For example, wood for use in cooking, building or repairing is eagerly sought. Spoiled food is used for pig feed, and reportedly, some families eat food from the dump if they consider it acceptable.

3.2.5 Middle People

(1) Buyers

Buyers are those who purchase scrap materials from scavengers for resale to large junk shop owners, recycling plants or factories. The scavengers sell their goods on a cash or delivery basis to the buyers. Often there is stiff competition between buyers of the same materials.

Buyers are usually former scavengers who live on the dumpsites alongside their 'suppliers'. Most scavengers would like to become buyers because they handle sufficiently large quantities of materials to make the activity significantly profitable. People become buyers by acquiring capital and breaking into the market. To become a buyer a scavenger needs to own a shop with facilities for weighing collected materials, cleaning bottles, and storage space for between 20 and 50 carts. Large dealers, to whom the buyers eventually sell, usually supply the capital required through a loan.

In Colombia, despite strong demand for waste paper, buyers operate in disciplined cartels and pay low wages to the collectors. The small scale waste buyers operate satellite warehouses and are usually not permitted to sell directly to the paper mills. The buyers must sell to the large paper buying operations, which are often mill owned (Vogler, 1987c). In the case of glass recycling, the buyer sorts out saleable bottles, which are sold to makers of fish sauce and soft drinks, from unsalable or broken ones which are sold to a dealers handling cullet (broken glass). As a result, thousands of metric tons of cullet are supplied yearly in the Philippines.

Since buyers are important figures both economically and socially, some claim that they are the most popular people in the dumps. The buyer makes more profit than the scavenger, but s/he is

perceived to be the 'amo' or benevolent master of the scavenger. The buyer also plays a crucial role in providing a social 'safety net' by lending families a few pesos for food without charging interest.

"That he earns a little more than the scavenger is less important than the community's possible collapse should he cease to play his unique economic and social role" (Keyes, 1982).

(2) Dealers

The step from buyer to dealer represents a quantum economic leap. The dealers operate on a very large scale and sell directly to the companies or manufacturers of recycled products. A dealer has to own a truck, employ a number of persons, handle large quantities of goods and invest a relatively large amount of capital in her/his business. The dealer also needs capital to keep the loyalty of her/his buyers. This is accomplished by helping to finance their fleets or by giving them cash advances so that they can pay their scavengers.

Junk shops usually specialize in particular products such as metal, glass or plastic. Two Philipinas, Mrs. Victoria and Mrs. Cruz, for example, specialize in cullet. Their major task is to convert the assortment of mixed and dirty glass into material acceptable to glass factories. Each of these women employs about 25 sorters and uses half a dozen trucks. They prefer to buy breakages from the local bottling plants, most of which are very clean and do not require much sorting (Vogler, 1984).

Such large dealers are able to supply all the cullet required by the large glass manufacturers in the Philippines. Corporations prefer to deal with seven or eight large middle persons, each capable of delivering 1,000 metric tons at a time, rather than with a huge number of tiny collectors or medium-sized junk shops (Vogler, 1984).

The middle persons have a formal relationship with the state, as their junk shops issue receipts and pay taxes. The shops also keep fairly regular hours and have recognizable places of work. In comparison to the scavengers, the middle persons are firmly entrenched in the formal sector.

3.2.6 Factories

Once the materials have been collected, sorted and sold to the middle persons, they make their final journey to the factories which manufacture paper, glass and plastic. Several case studies have examined the role and impact of reused materials in major industries.

For Universal Paper Mills Inc. of the Philippines, scavenged materials have a dramatic impact on their operations. Paper waste, which represents 70% of scavenger's total collections, accounts for 74.4% of the raw material inputs for chipboard manufacturing, and 27.3% for boxboard production. Universal's raw material inputs from scavenged materials represent one-fifth of the total volume used by Manila plants. In general, paper recycling plants in the Philippines rely on mixed waste paper for at least 13% of their raw materials (Keyes, 1982).

Union Steel Co. of Caloocan, Philippines buys metal scraps from the middle persons. The metal blocks are melted and formed into billets. The billets are then fed into the rolling mills which make the steel bars. In 1988, the company was purchasing around 22,125 tons of scrap metal a month at P1.20 per kilo¹². In addition, the company also purchased additional billet to compensate for an insufficient supply of metal scrap (Vogler, 1988c).

Glass plants are also dependent on junk dealers for their raw materials. In the case of glass production, 60% of the raw material is cullet and 20% of the company's cullet requirements is supplied by junk dealers. One company actually spent P1.4 to P1.5 million daily on glass. Glass illustrates the elaborate social arrangement for collecting used waste in the Philippines and the circular progress that constitutes true recycling. The material is passed from householder to collector to dealer to middle person to factory, which makes it into new glass bottles, which in turn are sold to the household. In this way, the cycle of use and reuse begins again.

3.2.7 Benefits of Scavenging

Scavenging plays a positive role in the national and urban economies. First, scavenging provides a source of employment to people who are unlikely to find employment in the formal sector.

¹² In 1988, \$1U.S.=P21.4

The World Bank has estimated that scavenging and trade in recycled materials represents employment for 1 to 2% of the urban population. (Cointreau, 1982) Given that the official unemployment rate in the Philippines is 24%, scavenging provides a real economic alternative to the city's urban poor. The displacement of scavengers, without compensation, would merely add to the existing urban unemployment problem.

Second, scavenging allows articles which are not normally considered valuable to become productive. This re-use of materials represents a significant saving of virgin materials and is therefore of both economic and environmental benefit to the nation. Specifically, use of local materials helps to reduce dependence on imported virgin inputs. This allows the nation to reduce the outflow of precious foreign currency. Also, energy is saved since recovered materials have already gone through the primary processes necessary for their use. It has been calculated, for example, that recycling 1 ton of paper saves 3,500 kilowatt hours of electricity. Recycling 1 ton of aluminum saves 62,000 kilowatt hours. The monetary equivalents of these energy hours are significant.

A study of Bandung concluded that the total value of all Bandung's garbage could reach Rp20 million per day or Rp660 million per month in 1985. The estimated value of the waste collected from three landfill sites in Thailand was approximately 60,146.25 baht per day in 1984. In Jakarta, 1988, 1 ton of recycled garbage is worth Rp175,000 (Madjiah, 1988). Jakarta produces 8,000 tons of garbage daily. 2,000 tons could be recycled; 75% of this amount has economic value. If one kilo of garbage is worth Rp175, Indonesia could earn an annual income of Rp87.5 billion from recycled waste.

Third, scavengers supply goods and services to both formal and informal operations. Although the activities of scavengers cause minor difficulties for municipal cleaning staff, the local government is directly aided by their activities since they are responsible for reducing the levels of disposable waste. Scavenging can reduce the volume of refuse by at least 20%. Scavenging also serves industry by providing inexpensive inputs which help to reduce production costs.

In addition, scavengers provide inexpensive goods made from recycled materials to other poor groups which cannot afford new wares. For example, in Indonesia, kerosene stoves made of asphalt drums sell for Rp 2,000, whereas stoves made of virgin materials cost Rp9,000 (Versnel, 1982). In

India, "[t]he mattresses for Mother Theresa's homes for the destitute and dying are made of the recycled coconuts bought by the street children of Calcutta" (Anon., Globe and Mail, 1988a).

In conclusion, it is obvious that scavengers play a vital role in many existing solid waste management systems. Scavenging provides society with several economic, environmental and social benefits. Clearly waste disposal plans which are designed to eliminate all of the informal elements in solid waste management systems will have a tremendous effect on all of the components and persons involved in the system. The range and nature of these impacts will be delved into later on.

CHAPTER 4 CASE STUDY OF SMOKEY MOUNTAIN

4.0 INTRODUCTION

Metropolitan Manila has a population of more than 8 million people occupying 636 sq. kms. Metro Manila currently generates more than 3,400 tons of solid waste daily; 1,000 of which is dumped into creeks, canals, rivers or burned or recycled. The remainder of the waste is dumped into 7 open dumpsites. The biggest dumpsite is in Balut, Tondo; it receives 30% of all disposed waste (Presidential Taskforce on Solid Waste Management, 1988a). The Technical Committee on Scavengers has focused on the scavengers living at this dump, nicknamed "Smokey Mountain", since they represent the largest number of stationary scavengers in Metro Manila.

The purpose of this chapter is to present a case study of the community of Smokey Mountain; its history, geography, population and economy. This information will place the needs, wants and fears of the residents in their historic, socio-economic context. The characteristics of this community will be used to evaluate government plans and actions in terms of their appropriateness for the area ¹³.

4.1 HISTORY 1930-1987

The historical narrative begins in the 1930's. The present location of Barrio Magdaragat (the legal name of Smokey Mountain) used to be a strip of land separating the bay and the river ¹⁴. Due to the action of the waves and the currents of the river, this piece of land submerged, forming a single body of water. One of the owners of the adjacent lands constructed fishing pens in the area, while another owner developed a subdivision. Both owners sold their properties to Americans when they heard that President Quezon was going to give the land to the squatters that were occupying the area. Ironically, the land was not distributed among the squatters, but was even further

¹³ The information contained in the following section is based primarily on two sources, Brillantes, 1988 and Francisco and Carlos, 1988. Informal conversations with the residents of Smokey Mountain confirm these written accounts. The historical narrative is largely drawn from discussions with a community member named Isaias Dollente, who has lived in the area of Balut, Manila for almost 70 years. He is a former Barangay Chairman and has witnessed first-hand many of the events described in the following account.

¹⁴ Literally translated, Barrio Magdaragat means "community by the sea".

subdivided by the new owners. Consequently, the people had to leave-"we were thrown away" (Brilliantes, 1988:6).

Just before the outbreak of World War II, a wall was built on the eastern portion of the area, near San Rafael Village, to protect the land from the waves. White sand gradually accumulated near this wall, and it is here that the Americans later constructed a bathing place. When the Americans evacuated the area, people from nearby built houses, erected a small chapel and installed electricity. The twenty families living in the area were either engaged in fishing-related activities or employed in nearby factories.

During the administration of Mayor Lacson (1940s), there was a threat to demolish the growing number of squatter structures in Barrio Magdaragat. However, the last minute intervention of President Macapagal averted the planned demolition of the area.

The Balut dumpsite was opened in 1954. It was also during this period that the residents of the barrio assumed a legal personality. They were registered with the Securities and Exchange Commission as Nayong Magdaragat. During the late 1950s, Paco Reyes ordered the relocation of the squatters occupying the present site of Tondo General Hospital to the area around the dumpsite. This move marked the beginning of large-scale migration to the dumping area and full-time scavenging in Barrio Magdaragat.

The mounds of garbage continued to grow during the first decade of Marcos' rule (1970s). The unsanitary conditions led to a dramatic rise in the incidence of disease and illness. Further, the peace and order situation in the area began to deteriorate. Pressure to demolish the shanties grew with each passing year. The only positive development during this time was the Securities and Exchange Commission's recognition of the Barrio Magdaragat Homeowner's Association. The residents registered with the Commission in the hope that they would be given titles to the lands they were occupying.

Residents' hopes for land tenure were reinforced by the visit of the First Lady Imelda Marcos in the early 1980s. Mrs. Marcos actually walked through parts of the community and expressed her disapproval of the existing conditions. She reportedly promised residents that they would be given

titles to their plots and that her husband's government would redevelop the area into a beautiful residential community. Instead, in 1983, the National Housing Authority implemented a decision to demolish the squatters' residences in Barrio Magdaragat. Despite several petitions, the demolition and relocation program of the government was pushed through.

The people of Barrio Magdaragat were relocated to a resettlement area in Bulihan, Cavite, some 30 kilometers out of Metro Manila "which was a classic failure of government resettlement schemes" (Metro Manila Commission, 1985b). It took over one hour to commute to Manila and the fare cost approximately 8 pesos one way. It was a totally unfeasible living arrangement for workers earning a meagre P10 per day to be paying P16 just to travel back and forth to work.

In Bulihan, the residents were given a small piece of land, four walls and a toilet, but many of them had no source of income. Consequently, as early as three months after their relocation, many people began returning to the dumpsite. Smokey Mountain, for all of its disadvantages, still promised them a means of income. A typical explanation for leaving Bulihan and returning to the barrio was: "Of what use is the toilet bowl if you have nothing to shit"? The decision to abandon a clean relocation site in favour of a disease ridden dumpsite was based on pragmatic reasoning. As one resident explained: "[t]he houses may be nice, but there's no water. There's no food. No work. In Smokey Mountain, even if we're surrounded by garbage, there's livelihood. My children's stomachs are full" (Martinez and Sycip, 1987).

In less than one year, almost all of the relocated families had returned to Barrio Magdaragat. Other families which had been relocated to Bulihan, decided to move to the dumpsite as well. This caused a significant increase in the population of Smokey Mountain. It was during this resettlement period that Metro Manila Vice Governor Mel Mathay issued an order to burn all the shacks in Barrio Magdaragat as part of his overall anti-squatting campaign. Before Mathay's demolition plans were implemented, however, the Barangay captain was able to get orders preventing the demolition of

their shanties ¹⁵. With news of the aborted demolition, even more migrants moved into the area. No one seemed to have the capability or the willingness to control the influx of these migrants.

This state of affairs continued until November 1987 when the Aquino administration proposed the relocation of residents and the redevelopment of Smokey Mountain. The events following the 1987 decision to close the dumpsite will be outlined in Chapter 5.

4.2 EXISTING CONDITIONS

4.2.1 Geography

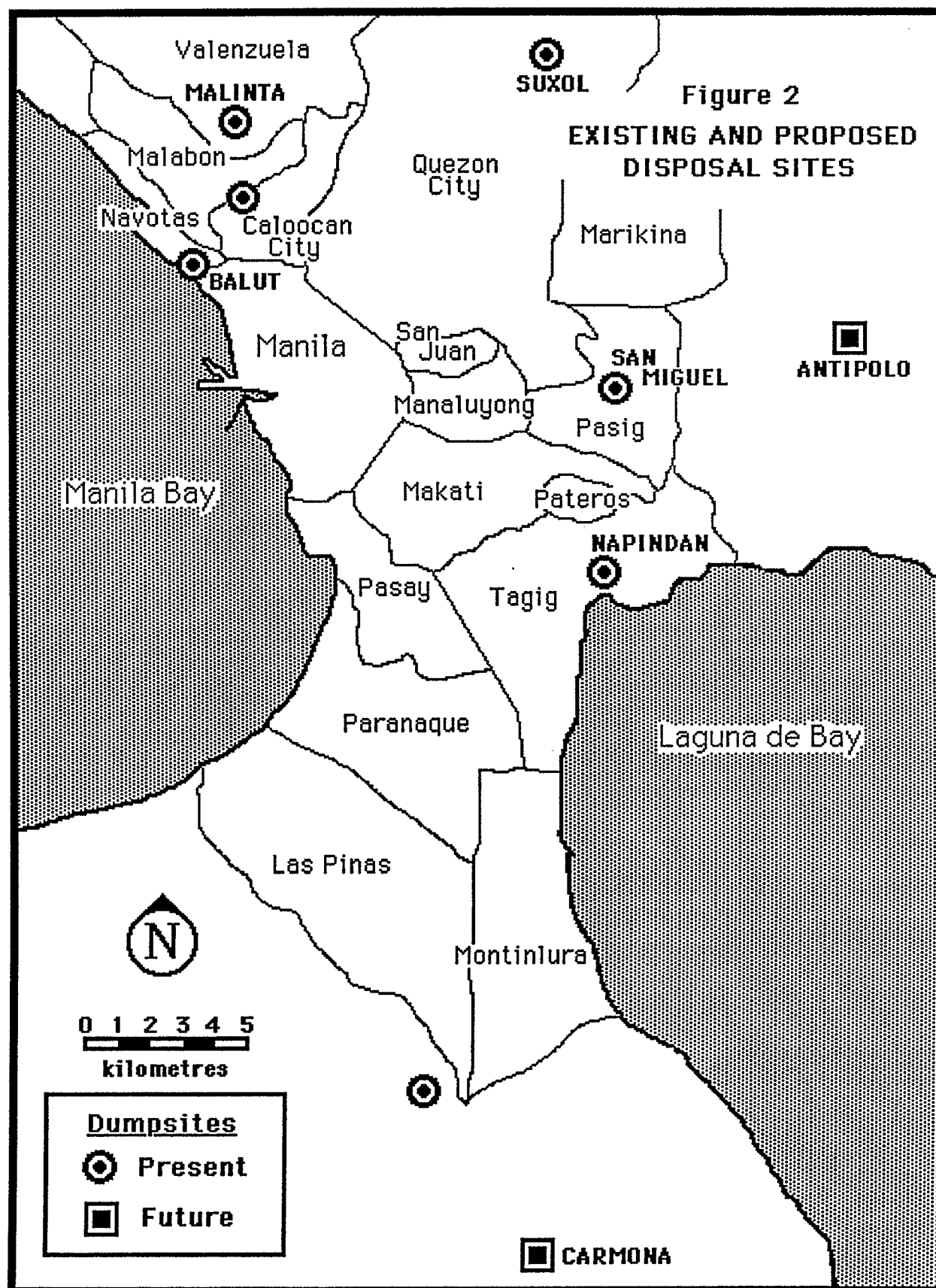
Commissioned in 1954 as a dumpsite, Smokey Mountain is located in Balut, Tondo. (See Figure 2). Dumping activity has resulted in the reclamation of 34 hectares of Manila Bay. The reclamation of Smokey Mountain currently features a tower of refuse 40 meters above sea level. The dump covers some 15 hectares and is composed of two barrios, Barrio Magdaragat and Looban. The City of Manila officially recognizes them as Barangay 128 and part of Barangay 129

The dumpsite is situated on the fringes of north Manila, close to the fishing town of Navotas. It is near the chief abattoir of Manila and the principal fishing port of the Asian region - the Philippine Fishery Port. The barrio is bounded on the south by E. Rodriguez Street, on the north by Estero de Vitas, on the east by Honorio Lopez Blvd., on the west by the Marcos Highway.

4.2.2 Living Conditions

The environmental conditions at Smokey Mountain have received international and national media attention. James Fallows in The Atlantic Monthly described Smokey Mountain as follows: "[t]he living conditions would seem to be miserable: the smell of a vast city's rotting garbage is so rank and powerful that I could not breathe through my nose without gagging" (Fallows, 1987). Officials have deplored the conditions at Smokey Mountain for years. For example, Manila Mayor Lopez declared that Smokey Mountain is a "monument to apathy and neglect, a symbol of poverty, and an aberration in a city aspiring to affirm human dignity" (The Manila Chronicle, [1988] as quoted in Brillantes, 1988) Congressperson Consuelo Reyes also denounced the "intolerable health

¹⁵ Barangays are municipal districts which have elected representatives (captains).



Source: Presidential Taskforce on Waste Management, 1988a

and housing conditions in the area" (The Globe, [1987] as quoted in Brillantes, 1988). Let us now investigate these conditions in further detail.

4.2.3 Housing

As in most slums, the people of Smokey Mountain live in makeshift huts made of old, dilapidated materials such as wood, rusting galvanized iron, cardboard, tattered plastic, cartons, etc. Old tires adorn the thatched roofs to prevent them from being blown away.

The shanties can be as small as 5 square meters. Some houses have no flooring at all and only have sacks for walls. The homes are usually one room structures bereft of household possessions except for some cooking and eating utensils, mats and pillows, a gas lamp, a few items of clothing and a pair of boots. Only 33% of the residents claim to own an appliance, the most common of which is an electric fan (City of Manila, 1988b).

The location of the shanties is restricted to certain sections of the dump. While they are not located beside the active dumping areas, the shanties are built directly on top of old disposal sites. The paths that crisscross the community are littered with broken glass, metal scraps and feces. The narrow alleys are usually wet. Flies blanket the area. During rainy season, the community becomes flooded, and water, teeming with maggots and worms, reaches knee level. Many of the shanties' dirt floors are washed away.

There are approximately 2,900 structures in the area; the majority of the occupants (88%) own the structures they live in (City of Manila, 1988b). Most of the non-owners are renters or relatives. On average, each structure accommodates between four and six people, however, some homes have been known to shelter up to eight people. Over 66% of the households do not have any toilet facilities (City of Manila, 1988b).

Ironically, from the description of the older residents of the Barangay, it seems that before the demolition of 1983, Barrio Magdaragat was relatively clean and orderly. Houses were not as dilapidated as they are now and they were built in places which provided for definite boundaries and

passageways. Because the area was not as crowded as it presently is, residents were able to fence their respective plots.

4.2.4 Water

There is no reliable, potable water source within the community. Water is supplied to the community mainly through water peddlers who purchase it from residents living in adjacent communities at P.50 per container. The containers of water are then sold for anywhere between P1.25 to P2.50, depending on the distance of the house from the water supply. Those who cannot afford to spend money on water apparently drink salty water from the common well dug at the foot of Smokey Mountain.

A water project was recently funded and implemented by both private and public organizations. This involved installing a 10,000 gallon water tower and pumping facility in Smokey Mountain. Approximately 8 taps were strategically located throughout the community. Residents have since established their own water management board. Members of the water cooperative are still charged per container, but the water is potable, the charge per container is low, and the taps are conveniently located.

4.2.5 Electricity

There are no legal electrical connections in Smokey Mountain. Most people use gas lamps. There are, however, numerous lines that illegally tap into the City's lines. Connecting services are provided by male residents who have some knowledge of electricity. The connections are neither reliable nor safe; some residents have been electrocuted.

4.2.6 Transportation

Smokey Mountain is accessible from any point in Metro Manila. Within the Barangay, dump trucks are commonly seen bringing in the garbage. Cargo trucks and jeepneys (local mini-buses) transport materials from Barrio Magdaragat to dealers or factories outside the community. Residents rely on jeepneys or tricycles for their primary sources of transportation. A few people also take buses; some residents have to walk for lack of funds.

4.2.7 Health

Most of the poor health standards in the community are directly related to poverty and the absence of basic sanitary facilities such as toilets. Further, only 15% of adults have received comprehensive immunization treatments (Metro Manila Commission, 1985b).

When asked about their health during 1987, residents reported experiencing coughs and colds (44%); flu and fever (31%). Many children in the area suffer from gastro-enteritis, pneumonia, dysentery, cholera and worms. Tuberculosis and peptic and gastric ulcers are also prevalent. Only an estimated 25% of the children have received any type of inoculation. Infant mortality is high and malnutrition is rampant among small children. A survey of women in the area indicates that 48% of mothers have lost a child. Most of these children died in early childhood from gastro-related illnesses such as diphtheria, diarrhea, cholera (24%) or respiratory ailments such as bronchitis, pneumonia or tuberculosis (23%) (Francisco & Carlos, 1987).

An average family eats once or twice a day, depending upon the availability of money to buy food (Institute for the Protection of Children, 1988). A survey of female residents reveals that in order to improve health standards in the area, most women (75%) want more food, particularly nutritious food (Francisco & Carlos, 1988).

There are no permanent health facilities such as hospitals or staffed clinics in the community. However, there are some civic organizations that provide health services to the residents. Doctors from Tondo General Hospital, or medical teams from the Philippine Alliance of Medical Students, visit the area on a regular basis. The government provides most of its services through the Department of Social Welfare and Development. It sponsors a feeding program for malnourished children during weekdays, and provides free medicines and vaccinations to needy residents. The City of Manila's Health Department also sends representatives to the barrio for weekly clinics. Residents with advanced cases seek help at the nearby Tondo General Hospital.

Community organizations also attempt to provide limited health services. Religious groups such as Samahang Kristiyano (SK) and Youth With a Mission (YWAM) run feeding programs for

children after church on Sundays. The Institute for the Protection of Children (IPC) oversees a health cooperative which provides a de-worming program for children.

Unfortunately, illnesses are often not attended to because residents cannot afford to buy the necessary medicines or to bring the sick person to a doctor for treatment. As most drugs are not subsidized, prescriptions are often too expensive for the residents to fill. The medicine required to treat an infant's cold, for example, represents over two days' work for a scavenger.

4.3 SOCIO-DEMOGRAPHIC PROFILE

4.3.1. Demographic Profile

The exact number of residents at Smokey Mountain is uncertain. Some studies suggest that the population is about 20,000, while a recent City of Manila survey found only 13,413 residents (City of Manila, Dept. of Social Welfare, 1988b) ¹⁶. Community residents, however, maintain that the Manila survey missed approximately 100 households ¹⁷. (This is not difficult to imagine given the haphazard construction of the shanties.) If the findings of the Manila survey were adjusted to reflect this difference, then the population would reach at least 14,000. Despite the probable inaccuracy of the Manila study, it will be referred to in the following section with the assumption that the missing families fell within the norm for the area.

Males represents 51% of the population. The barrio has a young population: 75% of the total population is below 30 years of age; 62% are below 24 years of age. Those in the late adult category, 43-55 years of age, represent only 8% of the total population.

Only 38% of the adult population (defined as over seventeen years of age) is single. Most of the family heads are males; only 3% of family heads are females ¹⁸. Of family heads, 95% of males heads are married, while only 29% of female heads are married. The female family heads

¹⁶ Population estimates over 20,000 can be found in Metro Manila Commission, 1985b, Presidential Taskforce on Solid Waste Management, 1988a.

¹⁷ The City of Manila refused to acknowledge the possibility of such an error. This might have grave consequences since, without evidence of enumeration, residents will be denied land tenure and will be forced to leave.

¹⁸ No definition of family head is provided in the City's study. Presumably the term refers to the primary income earner in a given household.

tend to be older than their male counterparts, which suggests that female family heads are probably single parents and sole bread winners. This group of scavengers would appear to be especially vulnerable to any loss in income.

An average household consists of one family head and 4.4 dependents, which is a relatively low dependency ratio for a slum community. If one assumes that in most cases one of the dependents is the spouse, then there are only, on average, 3.4 children per household. Only 21% of all households have more than 5 children. The majority of residents want to have between 3 and 5 children. The availability of birth control, coupled with high infant mortality rates may help to explain the low dependency rates.

4.3.2 Migratory and Residential Profiles

The area is fairly homogeneous; approximately 50% of the residents came to the area from the central Visayas region while 48% came from northern Luzon region. Most residents came seeking work and only 12% would consider returning to their native provinces. The community's physical arrangement reflects these regional differences as extended families and persons with similar cultural roots tend to live near one another.

Approximately 60% of the residents have lived in the area between 1 and 10 years; the mean length of stay is approximately 7 years. Surprisingly, 25% of the population has lived in the area for over 20 years.

4.3.3 Level of Education

There is a high literacy rate in the area: 95% of the residents have some form of formal education. More than half of the population has reached the elementary level, and about one-third of the residents have reached high school. Men are more likely to have finished high school.

Statistics regarding child enrollment and educational attainment are not consistent. Some groups, such as the Institute for the Protection of Children (IPC), have estimated that only 10% of children complete their basic education. The National Housing Authority (NHA) has estimated that only 45% of children of school age are presently attending school. Both claims are significant because they bring into question the extent and nature of child labour in Smokey Mountain.

Several day care centres operate in the community. One day care is run by a church group named Samahang Kristiyano (SK). It teaches catechism to 15-20 pupils who range in age from 4 to 6 years. Other missionary groups such as Youth With a Mission (YWAM) and a Korean church also have "tiny tots" kindergartens which are staffed by community volunteers. Parents who are unable to send their children to high school can seek financial assistance from either SK or YWAM. Assistance may include the payment of tuition fees or the provision of school uniforms and school supplies. In exchange for this support, however, the children and their parents have to either join the missionary organization or attend the bible classes; otherwise the assistance is withdrawn.

4.3.4 Recreation

The only recreational facilities in the community are a plaza, several billiard tables and some gambling 'houses'. The plaza, which has a basketball court and a playground for small children, was constructed through the efforts of Father Ben Beltran, the Roman Catholic parish priest, in order to divert the youth from drugs and other vices. Lively basketball games are played during the weekends and the residents are pitted against neighbouring Barangays.

There are several billiard tables where men and young boys can be found playing as early as eight o'clock in the morning. There are also gambling houses where card games and bingo are played. Women are usually seen in a huddle around small dry goods stores and men are found in drinking sessions. Children, often unclothed, can be seen playing in the dirt.

4.3.5 Religion

The majority of the residents (94%) are Roman Catholic. The remaining 6% of the population are adherents of the following groups: Protestants, Iglesia ni Cristo, Jehovah's Witness, Aglipay, Adventists or Mormons. There are five multi-purpose churches on the site.

Residents seem very grateful to the missionaries for the help they have extended, but there does appear to be some tension between Roman Catholic and Protestant groups. Some residents seem to have converted to the Protestant faith in order to gain material benefits such as loans, houses, or tuition fees. Protestants, on the other hand, have been denied access to items such as soap and rice subsidized by Catholic relief groups.

4.4 ECONOMIC PROFILE

4.4.1 Dependence on Scavenging

Estimates of the community's dependence on scavenging as a primary source of income vary greatly. The Women's Research and Resource Centre (WRRC) study, for example, states that "about 80% of the community's population depend on the dumpsite for their source of livelihood" (Francisco & Carlos, 1987). The Metro Manila Commission estimates that "about 75% of the residents within the dumpsites, as well as in the surrounding areas, are wholly dependent on recyclable materials as a major source of livelihood" (Metro Manila Commission, 1985a). The Foundation for Evolution, Education and Development's survey, on the other hand, found that only 43% of family heads consider scavenging their major source of income. Among other household members, only 54% of respondents listed scavenging as their occupation (FEED, 1988).

The City of Manila study indicates that only 36% of family heads are engaged in scavenging as their primary source of income. It is significant to note that a total of 4% of family heads were considered professional, technical and related workers such as teachers, policemen and firemen. Among other household members, only 30% scavenge for a living. Vendors (22%) and Labourers (21%) represent the next most common occupations among other household members (City of Manila, Dept. of Social Welfare, 1988b).

If these latter statistics are reliable, one would conclude that only about one-third of the adult population is engaged in scavenging full-time. This finding is corroborated by Cruz' research in Cebu. She reported that 31% of scavengers had no other family members helping them scavenge, 29% had one other member, and 18% had two other family members (Cruz, 1982b). Further, approximately 46% of both family heads and other household members work in the neighbourhood; 36% work within Metro Manila. This finding also supports the notion that scavenging does not represent a large portion of the occupational base.

It will be very important to verify the actual dependence on scavenging both as a primary and supplementary source of income when determining the numbers of jobs and/or levels of household

income that will have to be replaced when dumping stops. In addition, the impact of the closure in terms of the forward and backward linkages associated with scavenging will have to be measured and somehow compensated for. These complex issues will be dealt with more extensively in Chapters 5 and 6.

4.4.2 Employment Rates and Means of Payment

The potential workforce, if adult workforce is defined as those persons between the ages of 18 and 62, is 6,902 (3,019 family heads and 3,883 other household members). Given that the reported employed population is 4,074, there is an overall unemployment rate of around 41% (City of Manila, Dept. of Social Welfare, 1988b). Among family heads, the employment rate is 95%. Among other household members, however, the employment rate is 31%. As females represent 75% of the adult other household member population, unemployment in this category has to be seen as a female problem. Given a choice, 90 % of women interviewed in a WRRRC study indicated that they wanted to be employed. Their motivation was to help increase the family's income (Francisco & Carlos, 1987).

Almost all of the persons working as scavengers are paid on a daily basis. Skilled and non-skilled labourers have a greater chance of being paid on a weekly basis. Most of the workers (38%) are employed in a piecemeal fashion; very few people earn income on a semi-monthly basis.

Statistics dealing with employment rates have to be viewed with extreme caution. There is a tendency to minimize the contribution of additional income such as that earned by occasional scavenging. Further, as mentioned earlier, there is a significant amount of child labour in Smokey Mountain and children's economic contributions are not reflected in the numbers mentioned above. Also, only 54 out of 6,902 adults admitted to having additional sources of income. Despite long working hours, this claim seems unbelievable. Once again, the challenge of calculating aggregate household income becomes apparent.

4.4.3 Income Levels

The estimates of daily or monthly income vary as greatly as estimates for the rate of dependence on scavenging. The WRRRC estimates that the average scavenger earns about P600 per

month. FEED and an economics student from De LaSalle University both suggest that the average scavenger earns about P40 per day or (40×24) P960 per month (Sy-Facunda, 1988). Other sources indicate that because there is no fixed income, daily wages may range from 20 to 80 pesos per day. The City of Manila Study indicates that 52% of the scavenging family heads earn under P500 per month; 41% earn under P1,000 per month. Skilled and non-skilled labourers claim to earn, on average, under P1,000 per month. This pattern is also true for other family members.

When analyzing these numbers, it must be noted that the income statements are severely distorted downwards. When the FEED survey results were presented to the community leaders, for example, the residents laughed openly and admitted that the respondents had lied about their wages. Their rationale was that if they were not perceived to be very poor the government would not help residents, let alone develop the area. Subsequent interviews with residents led the researcher to conclude that the average adult scavenger earns approximately P50 per day. This translates into (50×24) approximately P1,200 per month. Once again it must be noted that this amount only represents the earnings of the family head and in no way takes into account the roles of secondary and/or child labour.

4.4.4 Skills

Only 31% of all family heads indicated that they had marketable skills such as carpentry, driving, or dressmaking. Among other household members, only 16% claimed to have any skills. Among these, the most popular skills were dressmaking (34%), carpentry (18%) and cosmetology (10%). These findings are in keeping with FEED's results which report that 63% of family heads do not have any skills with which to increase their daily income.

4.5 COMMUNITY ORGANIZATION

Both of the Barangays have their elected Barangay captains. There are many civic, religious and political organizations in the community. Despite the number of associations there is not a strong sense of community organization and unity. Residents are detached from national political development and are not particularly hopeful about the change in administration. Aquino may have

replaced Marcos, but the rich continue to rule. "We are small people. We are used to being run over". There is also little confidence in local government, particularly at the Barangay level. For example, people continue to blame the Barangay captain for the relocation in 1983 (Brilliantes, 1988).

The exception to the rule of cynicism is found in Barangay 128 where there is a powerful organization called Katipunan Para sa Kaunlaran ng Smokey Mountain (Association for the Development of Smokey Mountain). The organization is comprised of representatives of all of the member agencies. The Katipunan was formed in 1988 in response to the government's initial plans to relocate the residents. Their stated objectives are as follows:

1. Oppose the relocation of squatter living near the dumpsite.
2. Include the dumpsite under the urban land reform program.
3. Build a factory that will recycle garbage into fertilizer and electricity.
4. Create livelihood projects in the area.
5. Design a housing program for scavengers.

According to Brilliantes, the Catholic church, represented by Father Beltran, was instrumental in organizing the community under one umbrella organization.

Such an umbrella organization remains in the forefront of articulating the demands and rights of the people. While they may feel detached from national events, they are capable of organizing themselves to protect interests that affect them directly. These include resistance to relocation generation of livelihood, and owning the land where their shanties now stand. The church therefore presented itself as an effective alternative mechanism to the one provided by the government, the Barangay. (Brilliantes, 1988)

There are many influential, informal leaders in the community. Only one however, appears to have had any success in galvanizing and mobilizing the residents. This strong, compassionate leader is Father Ben Beltran who has been the parish priest in Smokey Mountain for over ten years. Father Beltran is well respected by both community residents and government officials. The Barangay hall, the chapel and the basketball court were all made possible by his fundraising efforts. He has also been responsible for the training of the community leaders through FEED, a local NGO¹⁹. In order to provide this grass roots leadership training, he secured funding from U.S.A.I.D. Most

¹⁹ FEED is an NGO dedicated to community organizing. It trains community leaders both to analyze the local needs and to promote change through collective effort.

importantly, Father Beltran was instrumental in founding the Katipunan and has assumed the role of the community's advocate before the Aquino administration. Only through his persistence have some residents been exposed to the proposed plans for the development of their community.

4.6 SUMMARY

In most respects, Smokey Mountain appears to be a typical scavenging community. What follows are the characteristics which the planners should have considered when developing the plans and communicating with the residents.

1. The people still fear eviction. They need to be reassured of land tenure.
2. The residents have low levels of education and will not qualify for many jobs outside of scavenging.
3. The community's dependence on scavenging has not been determined. This dependence must be calculated if all of the jobs lost due to the plan are to be compensated for.
4. Scavengers rely on daily income for their survival. They need to be provided with sufficient, regular wages.
5. The residents have few marketable skills. Appropriate skill demands will have to be made by prospective employers.
6. Family income is at least P50 per day. Total household income will have to be considered when devising new sources of employment.
7. There is a large degree of child labour at Smokey Mountain. Children's financial contributions will have to be considered when replacing total household income. Special programs may have to be established when reintroducing older children to the school system.
8. The community is capable of being organized. The residents can identify their priorities and have demonstrated their desire to have input into the planning process.

The Presidential Taskforce in general, and the Technical Committee on Scavengers in particular, were faced with a complex planning exercise: how best to integrate such a marginal community into a planning exercise of metropolitan magnitude? Let us now examine how they responded to that challenge.

CHAPTER 5 THE PLANNING PROCESS

5.0 INTRODUCTION

As suggested in Chapter 1, planners are not neutral or value-free change agents. Consequently, the plans and programs they devise are an expression of their views and assumptions. Plans for solid waste management systems are not exempt from this trend. According to Furedy, for example, most Asian solid waste systems are based on principles of scientific and social engineering rather than innovation and community support ²⁰. As a result, the plans developed by the Presidential Taskforce on Solid Waste Management in Manila reflect a common bias: efficiency over equity.

The relationship between the Steering Committee on Solid Waste Management and the Technical Committee on Scavengers reflects the assumptions underlying the planning process. The actual contents of the plans further reveal the views and biases of the planners. Such information allows the observer to uncover the major weaknesses of the plan and allows her/him to predict some of the potential impacts of this approach. Therefore, long before the implementation stage, the inappropriate and precarious foundations of the plans can be exposed.

Values determine not only the eventual content of such plans, but also help forge how the initial problem is defined and what process should be used to develop the plans. For example, views on the value of public participation are based on other beliefs regarding democracy, efficiency, information exchange and the nature of relations between the state and the public. The impact of values on the planning process and the plans themselves is the focus of this chapter.

5.1 ASSUMPTIONS UNDERLYING SOLID WASTE MANAGEMENT SYSTEMS

When developing urban solid waste management systems in developing countries, planners have historically ignored the social aspects of waste management. Perrett et al, in Human Factors in Project Work has recognized the chasm between planners and 'beneficiaries'.

²⁰ See Furedy, 1986, 1987b, 1988c.

The public sector is usually represented by a hierarchical structure and usually centralized and rigid bureaucracies which may be closely tied to the political, economic and political elite. The project population is often represented by a neighbourhood or community organization, loosely structured and informal. An understanding of the social, behavioral, as well as other characteristics of the parties involved, is required to design ways to bridge these gaps (Perrett et al, 1980).

Furedy points out the need to recognize the centrality of waste recycling in the lives of the urban poor. Many of those who rely on the informal sector for their source of income make use of refuse to meet such basic needs as shelter, clothing, fuel, and even food. Poor, underprivileged groups are particularly vulnerable to technological change. Therefore, "it is very important to consider the impact of different techniques for collection, transportation and disposal upon informal waste recovery methods" (Furedy, 1987b). If waste recycling is seen as part of a broad environmental strategy, then those who are directly involved in recycling should be valued for their contribution to the process.

In most Asian cities, resource recovery strategies are usually based on western mechanized models. The existing local systems of resource-recovery, scavenging, reuse and recycling are often ignored when developing new systems. The municipal staffpersons handling waste management issues are likely to be engineers or physical planners; they are not equipped to deal with the environmental or social dimensions of waste management (Furedy, 1985). Consequently, "in most instances, there has not even been serious consideration of the extent and impact of informal activities - they have simply not been included in planning" (Furedy, 1986).

There seem to be two standard approaches to the management of solid waste in developing countries (Furedy, 1985). The first is the managerial approach where the impetus for change comes from above. The managers address problems of environmental quality and focus on collection, disposal and pollution problems. This approach is reformist and makes use of existing structures. Conservation and recycling are considered under formal, governmentally operated schemes; mechanized approaches are usually utilized to solve problems. The enforcement of by-laws, along

with constant monitoring, is used to secure the 'success' of the plans. Socio-cultural considerations only extend to not offending religious or cultural practices (Cointreau, 1987).

The second approach is based on grassroots environmentalism. This approach focuses on the impact of solid waste management plans on the poor and on the environment. The basic tenets of this method are source separation and recycling at every point of the disposal system. There is a great deal of emphasis placed on 'soft technology', which avoids mechanization in favour of labour intensive, locally sustainable practices. The approach goes beyond the search for appropriate hardware or means of ensuring mass cooperation. Rather, it seeks to understand peoples' needs, particularly those of the poor who depend on waste to meet some or all of their needs.

As one would expect, different approaches to solid waste management reflect various perceptions of scavengers. In the first view, scavengers are a nuisance who pose a threat to the public health. They interfere with collection operations and violate civic codes by trespassing on dumpsites. Scavengers are a source of shame to countries wanting to appear modern and so measures are taken to prevent scavengers from having access to the waste stream.

In contrast, more liberal approaches consider ways in which scavengers can be incorporated into the existing solid waste management practices. They recognize the valuable role that scavengers play in the recycling process and want to have them organized. Such official recognition provides them with legitimacy and safety. (Lohani, 1984).

The most progressive approach advocates actively promoting scavenging as an occupation, quite outside the formal waste disposal system. This is done by improving the living conditions of scavengers, meeting their basic needs such as shelter, and protecting them from exploitation by middle persons. In order to achieve this goal, it is recommended that scavengers be formed into communities around dumpsites where they will be allowed to practice their trade in freedom and safety. Further, scavengers should be provided with protective equipment and clothing (Versnel, 1982).

5.2 ATTEMPTS TO EMPOWER SCAVENGERS

There have been some attempts to reduce dependence on sophisticated, imported technologies and maintain reliance on informal recovery processes. These programs have been initiated both by scavenging communities and government agencies. In most cases, however, governments have failed to assume a long-term view and assess the possible impacts of their actions. Consequently, to date, the success record of attempts to improve the lives of scavengers has been poor.

The Calcutta Social Project, for example, focused on the needs of children scavengers and developed a school and training centre, a health clinic, a day-care, a skills training program and an adult education program (Furedy, 1988c). However proposals to have scavengers develop their own self-help housing community were shelved because municipal authorities refused to donate land for this purpose.

The Jati Dua community project, undertaken by the Institute of Technology in Bandung, assisted waste pickers in their attempt to form a cooperative and diversify their efforts. They learned techniques of composting, fish and rabbit raising, and developed a nursery based on growing seeds gathered from refuse. This project, however, was disrupted when the local government evicted the members from their squatter settlements and relocated them to other areas in Bandung. Despite these obstacles, the cooperative has reformed and, with the help of a Dutch non-governmental organization (NGO), is attempting to acquire sufficient funds to purchase a plot of land (Furedy, 1988c).

Manila's attempt to integrate the formal and informal waste recovery systems did not meet with success. The Manila Pera sa Basura Project (Cash for Trash) project of the late 1970s was intended to promote waste recovery at source and to increase the earning of scavengers by eliminating middle persons from the recovery process. Licensed 'eco-aides' bought recycled materials from households at set prices and sold them, also at fixed prices, to government owned eco-centres. Although 30 centres were established, by 1980, all of them had closed due to financial, managerial and marketing problems.

In particular, the project did not succeed because the influence of the middle persons was not sufficiently considered. For example, the junk shop owners managed to band together and compete with the eco-centres. Some of the eco-aides sold the recuperated items to the private dealers because they were offering higher prices than those set by the official redemption centres. There were no attempts to resuscitate the project (Cointreau, 1987).

In the city of Locknow, India, the local government proposed to make changes in the sewage system without involving the scavengers in the planning stages. The workers were not only concerned about the number of lost jobs: "there was also concern about the loss of on-the-side income that the scavengers would sustain since they were deprived of the principal 'perk' of their lowly work-the opportunity to sell nightsoil to farmers" ²¹ (Furedy, 1986).

In Bangkok, the Community Relations Groups, a local NGO, helped the scavenging community located on the Nooch dump site resist eviction by the Bangkok Metropolitan Authority in 1984. The group found suitable land and engaged in fundraising efforts to purchase the land and develop a self-help housing community. By 1987, the group had managed to save 150,000 baht (U.S.\$5,790) from the scavenging income. With additional contributions of 24,000 baht (U.S.\$923) they were able to make a down-payment on the land. The community has grown from 20 to 70 families and is now seeking funds with which to build homes and facilities (Anon., Bangkok Scavengers Buy a Home of Their Own, n.d.).

Each of these projects underscore the necessity of understanding the factors that must be taken into consideration when devising solid waste management plans.

Schemes that are initiated in ignorance of the existing informal systems, and in competition with elements in those systems, and which require a municipality to undertake functions for which they have no experience, would seem to have little prospect of success (Furedy, 1988c).

Several points are clear. A system which does not encourage separation at source and restricts access to waste at all points of the disposal process inhibits the amount of material that

²¹ Nightsoil is human excrement used for fertilizer.

can be recuperated. For example, compaction results in materials being more compressed, dirtied and damaged than had they been separated by hand at source (Furedy, 1988c). Mechanization may displace poor, dirty scavengers, but it does not necessarily provide more environmental benefit. Also, it is critical to take all of the actors involved in the disposal process into consideration. This would include both the traders and buyers of recovered materials.

Finally, without the commitment of governments to citizen participation and community empowerment, there can be no significant commitment of scavengers or scavenging communities to any changes in the system. The pragmatic and ethical importance of citizen participation cannot be underestimated. "The social rights of waste workers at all levels of the system should be recognized in policy making. All parties involved in processes of recovery and recycling should have a say in planning" (Furedy, 1984a)

With such lessons in mind, let us now turn to the plans of the Presidential Taskforce on Waste Management in Metropolitan Manila and examine how they affect the most underprivileged actors in the waste recovery system.

5.3 HISTORY OF THE TASKFORCE ON WASTE MANAGEMENT

In 1985, Commissioner Von Einsiedel of the Metropolitan Manila Commission observed that Manila was experiencing a "serious garbage disposal problem" (Allport and Von Einsiedel, 1986). The Presidential Taskforce on Waste Management for Metro Manila reiterated the need to tackle this problem area and concluded that:

[t]he present waste situation, especially in Metro Manila, is such that it becomes imperative for the government to set as one of its highest priorities the improvement of waste management system to enhance the quality of life of its millions of residents [sic]. (Taskforce on Waste Management, Executive Brief, 1987).

In keeping with this call for reform, Memorandum Circular No. 30, dated November 2, 1987 was issued by President Aquino. The memorandum created the Presidential Taskforce on Waste Management. It was to be composed of members from the following agencies:

- Presidential Management Staff (National)
- Metro Manila Commission
- Department of Public Works and Highways (National)
- National Economic and Development Authority (National)
- Department of Environment and Natural Resources (National)
- Development Bank of the Philippines (National)
- Department of Health (National)
- Department of Transportation and Communications (National)
- City of Manila.

The Taskforce was assigned the task of achieving the following objectives:

1. To identify an effective collection and disposal system or technology that can be efficiently sustained on a long-term basis.
2. To review all relevant proposals, concept papers and such studies on waste management and, consequently, package a project proposal that establishes technical, economic and financial viability.
3. To identify the most appropriate agency to assume the lead role in waste collection and disposal management and establish corresponding accountability; to set up supporting and cooperating agencies, public and private and define their respective participation and responsibilities.
4. To provide alternative sources of livelihood for scavengers that can be efficiently sustained on a long-term basis. (Office of the President, Memorandum Circular No. 30, Nov., 1987)

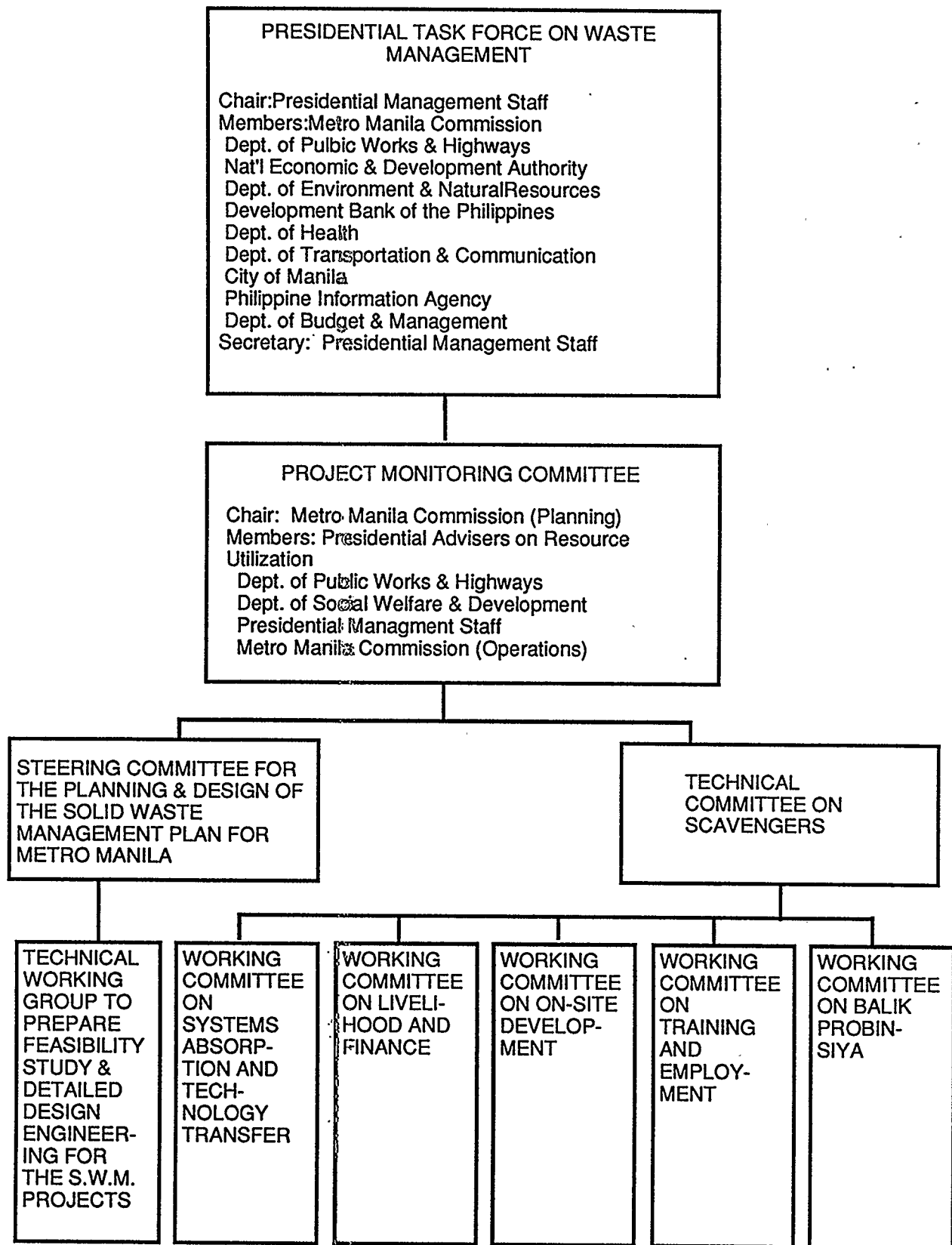
In order to pursue these objectives, the taskforce was divided into two technical committees.

The Steering Committee on Waste Management became responsible for the creation of an integrated plan for solid waste management. This was to include the research, review and evaluation of several waste management proposals. The Technical Committee on Scavengers was to formulate a viable alternative livelihood program for scavengers (Office of the President, Memorandum Circular No. 39-A). (See Figure 3)

5.4 STEERING COMMITTEE ON SOLID WASTE MANAGEMENT

The Steering Committee on Solid Waste Management was commissioned to design a "comprehensive plan on solid waste management wherein all technical, financial, environmental and socio-political factors are considered including roles and responsibilities of both critical and support agencies". The criteria used to evaluate the proposed approaches to waste disposal were to contain "all attendant administration, financial, legal, planning and engineering functions, this in accordance

Figure 3 ORGANIZATIONAL CHART OF THE SOLID WASTE MANAGEMENT PLAN IMPLEMENTATION



Source: Presidential Taskforce on Waste Management, 1988b

4. Processing: materials recovery, composting and gas recovery from landfill have been chosen over incineration primarily because there were fewer associated pollution effects. Materials and gas recovery processes, as well as pilot composting plants, shall be opened for private investment.
 - a. Materials Recovery: one potential means of recovery relies on hand sorting, trommel screens and picking belts. The screens serve to separate the fine and putrescible fraction from that which is potentially recoverable. The remaining materials are then sorted by hand. According to the plan, the "aesthetic factor should be the prime consideration as humans will be directly handling the waste. Proper installation and protection from heat and rain shall be provided, together with provisions for collection of recycled materials" (Presidential Taskforce on Solid Waste Management, 1988a).
 - b. Composting: a pilot composting plant is to be developed at Carmona. From 198,000 tons of solid waste per annum, 60,000 tons of compost/soil will be recovered. This represents a 30% recovery rate. The market for compost will be thoroughly evaluated during the pilot study before the implementation of higher capacity composting plants.
 - c. Gas Recovery and Electricity Generation: the composition of the waste, with a high percentage of organic matter (about 43%) and the humid climate, are factors conducive to gas production. Initially, a gas collection piping system will be installed in one of the landfills on a pilot scale.
5. Disposal: two sanitary landfill sites will be used. It is estimated that about 34 million cubic metres of landfill volume will be required until the year 2,000 to accommodate the solid waste generated by Metro Manila. The two designated sites have a capacity in excess of this requirement.

5.4.2 Financing Requirements

To finance the plans over the next 10 years, P1.77 billion are required. The plan will be funded by components, through funds that will be made available from local government units, the national government and/or through loans/grants from foreign governments such as Japan, Italy and Germany and multilateral organizations such as the World Bank and the Asian Development Bank.

5.4.3 Health and Environmental Elements

The plans include studies on the probable environmental impacts of the various activities. "With proper compliance to environmental standards throughout every aspect of the waste disposal operation, problems on health and environment will be minimized" (Presidential Taskforce on Waste Management, Executive Summary, 1988c).

Hazardous hospital waste will not enter the domain of a public solid waste management system until it is made innocuous by incineration and disinfection. A special study of hospital waste was included in the proposed environmental study. A survey of 26 hospitals revealed that general hospital waste was disposed of at dumpsites, some through burning, landfilling and composting. Infectious waste (liquid and solid) was either burned through incineration, dumped in open sites or disposed through the sewer lines. Sharp objects (needles, syringes, bottles) were disposed of through general waste, burning or burying, stored for specimen use or sold for recycling (Department of Health, 1988).

5.4.4 Socio-Economic Impacts

There are both positive and negative impacts associated with the plan. These will be dealt with at length at the end of chapter 4 and in chapters 5 and 6. Generally speaking, however, the positive aspects include an increase in the overall collection rate from 85% to 100%. The closure of the open dumpsites will put an end to the health hazards experienced by residents living within the vicinity of the dumpsites. This will lead to a substantial reduction in air pollution, water pollution, vermin, traffic congestion and will contribute to a general improvement in the amenity of the city.

There are many negative aspects to this plan. The most obvious feature is that the closure of the existing dump sites will inevitably lead to the loss of livelihood of more than 3,500 families who depend on scavenging as a source of income. In order to tackle this problem of induced unemployment, the Technical Committee on Scavengers was created. Its goals and plans are outlined in the next section.

5.5 TECHNICAL COMMITTEE ON SCAVENGERS

The goals of the proposed program for scavengers is to "uplift the quality of life of scavengers through the delivery of an integrated social service package" (Technical Committee on Scavengers, 1988b). The objectives of the program are as follows:

1. To identify employment/livelihood opportunities which shall serve as viable alternatives to scavenging.

2. To provide credit financing/assistance schemes for viable livelihood projects.
3. To provide skills training in other trades for prospective employment.
4. To develop entrepreneurial skills.
5. To promote positive work attitudes towards attainment of self-reliance and productivity improvement.
6. To develop better living conditions for scavengers through on-site development and relocation.
7. To encourage scavengers to return to their province of origin through the provision of transportation and other assistance.
8. To discourage further proliferation of scavengers through the formulation and strict enforcement of laws and ordinances pertaining to scavenging.

The program for scavengers is based on the recommendations of the Steering Committee on Solid Waste Management. The Steering Committee dictated the extent and nature of the impacts of the plan on the scavenging cycle in general, and scavenging populations in particular. Refer to Figure 4 for a time-line of the proposed plans.

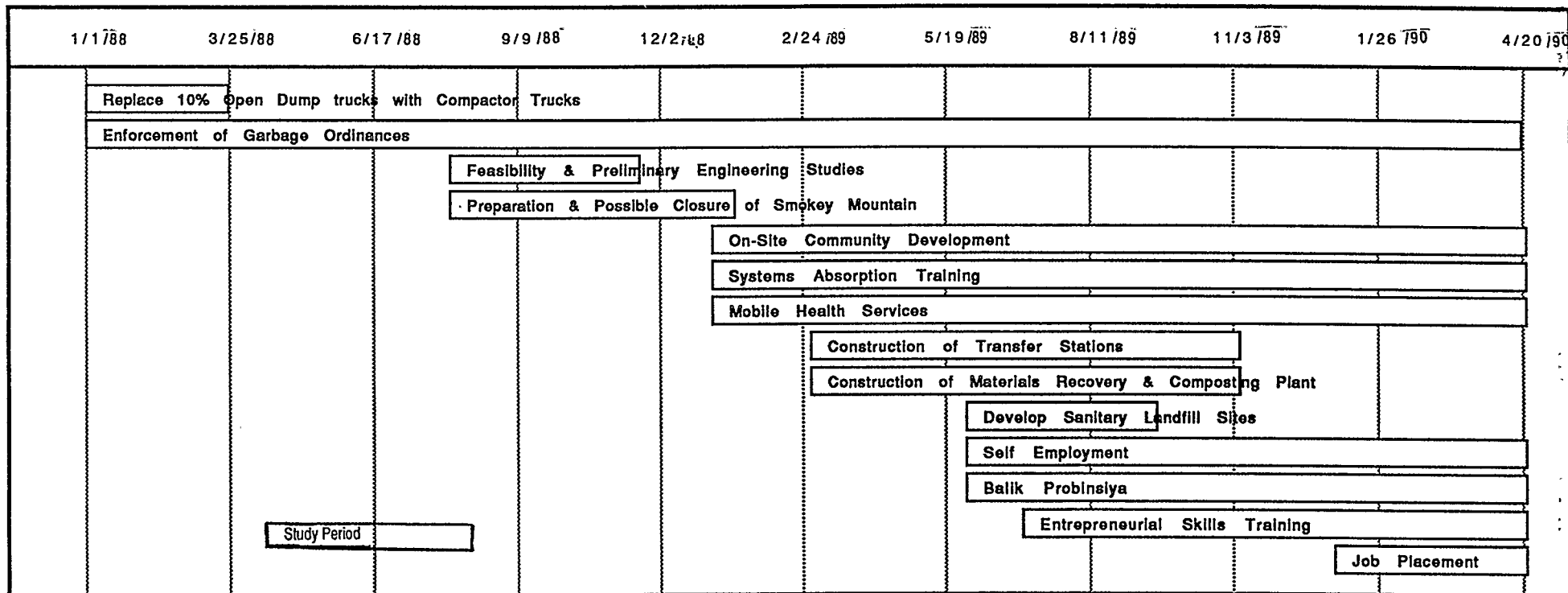
What follows is a description of the 6 component parts of the initial plan for scavengers. These plans have been modified somewhat throughout the research period, but will be presented as they were initially adopted. Amendments to the plans will be referred to in the latter part of this chapter.

5.5.1 Systems Absorption/Technology Transfer

This refers to the identification, selection, training and employment of selected scavengers under the new Metro Manila solid waste management system and/or the entire waste generation disposal-cycle. They will be trained either as technicians or skilled and unskilled labourers at compactor trucks, transfer-stations, sorting machines, composting plants, or materials and gas recovery plants. Appropriate skills/technology training is to be provided to five percent of employable adult scavengers.

One potential technology absorption scenario would include a simple type of resource recovery system which utilizes a trommel screen and a picking belt. The screen serves as a means

Figure 4 Timeline of Important Events



Source: Presidential Taskforce on Waste Management, 1988a.

of separating fine materials, and to a great extent putrescible fraction, from that which is potentially recoverable. Materials are removed by hand sorting and all the components can be manufactured and maintained using local materials. Scavengers could fill positions as sorters and unskilled workers. "Their previous experience in scavenging makes them well suited as sorters and probably more effective under the circumstances, than mechanical systems" (Presidential Taskforce on Solid Waste Management, 1988c).

5.5.2. On-Site Development

This aspect of the plan refers to the establishment of a new community through the development of basic infrastructure and the delivery of economic, social, health and education services to about 75% of the total scavenging population. Sites and services will be provided to all families residing in Smokey Mountain. The lot sizes will range from 24 to 36 m². An industrial strip will be built to "generate revenues for government as well as employment opportunities for the settlers" (NHA, 1988). The projected land development costs are P222.64 million.

'Value formation' or 'social preparation' is the first component of the social welfare program. These components reflect the perceived need to convey information regarding the value of industry, and hygiene. Value formation will be followed by the provision of day care, family life education, youth, legal and recreational services.

Health services include the recruitment and training of Barangay health volunteers, construction of a Barangay health station, networking with health centres, hospitals and other community organizations, intensive information and education campaigns and the supervision and monitoring of health programs.

The educational services include surveying schooling needs, preparing an education plan and monitoring projects. Proposals to build a separate school on site were rejected as it was feared that the children would be ostracized for attending a special school for former scavengers. The preparation of the educational plans, the establishment of links with various support systems, and the relinquishing of the administration and supervision of classes to the Tondo school board was to have occurred by May of 1988.

5.5.3 Absorption in Government Low Cost Housing Projects

Annually, 10% of all families will be transferred from the dumpsite to government housing projects. Livelihood assistance is included in this project to encourage people to remain in their new housing sites. The NHA will take control of the collection of mortgage payments and the provision of livelihood.

5.5.4 Balik-Probinsiya (Go Back to the Province)

The Balik-probinsiya program encourages families to return and resettle in their provinces of origin through the provision of financial assistance for transportation and other needs arising from the process of readjustment. The Department of Welfare and Social Development (D.S.W.D) will become involved in the "motivation of families to inculcate positive values for self-determination and decision to go back to the province and enable the families to fully realize better opportunities for a healthful living" [sic] (Technical Committee on Scavengers, 1988c). Clients will be linked with appropriate agencies and provided with temporary shelters in their province of origin

5.5.5 Training and Employment

Basic skills training programs aim to equip participants with appropriate skills which will enable them to increase their opportunities for better alternative employment. Training in programs such as automotive, electrical, refrigerator and airconditioning repair as well as high speed sewing will be offered. Training on the value of health will entail "surfacing and analyzing values with the goal of increasing the levels of awareness which greatly affect lifestyles and productivity"(Technical Committee on Scavengers, 1988c).

Skills upgrading will be provided through on the job training and theoretical instruction. These positions will be made available on an apprenticeship/learnership basis. The entrepreneurship training program will aim to provide information regarding budgeting, marketing, management, financial and technical production so that the participants will be able to start their own income-generating activities. This program will operate along the lines of established community based programs for dressmaking and cosmetology. (See Chapter 6) Managerial/leadership skills training will provide effective management skills and upgrade leadership and supervisory skills of the potential

cooperative/business operators among the scavengers. Training seminars on cooperative organization and operation will be provided.

Placement and referral for wage employment is also intended to provide employment to residents of Smokey Mountain. Sources of labour demand at the enterprise/industry level will be identified and a personnel registry will be developed and maintained. Programs for entrepreneurial self-employment will provide participants with financial support, technological aid and marketing assistance. Sub-contracting will also provide a source of employment. Labour supply and demand will be matched and labour standards will be upheld by close inspection and supervision.

5.5.6 Law Enforcement

The objective of this component of the plan is to prevent scavengers from plying their trade. In order to achieve this goal, dumpsites will be closed to all unauthorized persons. City/municipal ordinances regarding dump closures will be issued and enforced. The dump areas will be completely cordoned off. There will also be strict enforcement of anti-scavenging laws and ordinances. Law enforcers and Barangay officers will help police these ordinances.

5.5.7. Community Organization

Community organization will be used to develop people's abilities to solve their own problems. This will be accomplished through interviews, lectures, organizational meetings, coordination and collaboration, advocacy, networking and resource sharing. This strategy is intended to inculcate positive values regarding cooperation, self-determination, independence and self-reliance. The purpose is to raise the individuals' levels of interest and capability towards the development of the community. This approach will serve as a baseline of operation for other components such as skills training, financing, livelihood and the 'identified priority needs' of Smokey Mountain.

5.6 ANALYSIS

The plans developed by the Presidential Taskforce on Solid Waste Management are based on the rational planning model. The planners have relied on technical rationality to determine the nature of the problem and its solution. Recall that in the rational planning paradigm, planners do not establish policy directives; they use a functional, scientific approach, assigning themselves expert status, and they do not solicit the involvement of those for whom they are planning. The rational planning model is based on 'scientism' and elitism.

5.6.1 Impacts of Technical Rationality

The problem of providing a new solid waste management system was defined as a technical one. With the exception of the Department of Health, all of the agencies on the Presidential Taskforce were oriented to dealing with physical or financial matters. The engineers and other related experts were clearly put in command and they invited no non-governmental agencies or community associations to participate in the planning process.

It is not surprising then that such experts looked to a metropolitan solution that relied on high technology. What is not clear is whether the planners rejected or were ignorant of the alternative approaches of other cities such as Bangkok, which actively encourage scavenging. Also, no mention was made of the Pera sa Basura project in Manila: apparently no lessons were learned from its demise (See Section 5.2). The managerial approach, with its emphasis on mechanization, was whole-heartedly embraced by the Taskforce. The direct technical and social consequences of such a bias will now be outlined.

First, the plans neglect to integrate the role of waste disposal at the local level. For example, there is no educational component promoting the household extraction and reuse of solid wastes. Given proper direction and support, families could use some of their organic waste as fodder for animals or as compost for their urban gardens. This de-emphasis on the role of the household in the recycling system may prove to be a large oversight, given that recycling at source is the most efficient type of recycling.

Second, the use of very expensive compactor trucks also has some major drawbacks. For example, the compaction of the garbage will make manual and mechanical sorting much more difficult later on in the waste recovery cycle as the materials will become even dirtier and difficult to separate. Also, hard currency will have to be used to replace and repair the initial fleet of trucks, making the entire system more expensive to operate.

Third, other Asian countries have experienced difficulties producing high quality compost. Given the multiple compacting of garbage, it is very difficult to eliminate ubiquitous plastic residue and tiny glass particles from the compost. In some cases, farmers who walk barefoot in their fields have refused to accept these types of remnants in their fertilizer. Why has the Taskforce not learned from such examples and sought out more appropriate, less sophisticated systems?

A striking example of planners valuing technology over people can be seen in the plans for materials recovery. Why should the aesthetic factor be most important? How can one explain this lack of concern for working conditions such as safety and hygiene?

Finally, it must be emphasized that there is no commitment to the utilization of manual sorting techniques. Highly mechanized systems are also being considered. It is quite feasible that a system which requires a few highly skilled technicians will eventually be selected. If international funds for a sophisticated waste disposal system become available, scavengers may be completely eliminated from the new waste management system.

5.6.2 Lack of Policy Direction

The plans have suffered from a lack of clear policies which could have both demonstrated political will and have provided an indisputable framework for action. Nowhere in the Solid Waste Management Plan is there a policy directive that clearly delineates the value of recycling, the valuable roles that scavengers play in the recuperative cycle or the imperative of recompensing those affected by the plans. The planners have not been proactive in setting out such policies; instead they have merely sought to match appropriate means to prescribed ends.

This lack of policy driven direction has forced the Technical Committee on Scavengers to adopt very general plans that will require extensive modifications once the details of the Solid Waste

Management Plan are finalized. The Technical Committee on Scavengers is placed in an extremely passive or adaptive role, one which attempts to mediate the negative socio-economic impacts associated with the highly technical plans. The discomforting question begs to be asked - which is more important, efficiency or equity?

One result of the domination of the Steering Committee for Solid Waste Management is that all of the social welfare service components of the plan are far behind their projected completion dates. This would indicate that the physical developments for Smokey Mountain will likely precede the economic and social programs intended to compensate and assist the scavengers. For example, plans to build two mobile health stations are far behind schedule and children have not been integrated into their local public school. In the worst case scenario, the dumping would cease before the livelihood programs became operational; mass hunger would ensue.

The fast track approach of the Steering Committee for Solid Waste Management, coupled with the lack of clear policy directives has resulted in confusion and delay. For example, the NHA, which assumed control over on-site development, submitted development plans which referred to "[t]he establishment of the incineration plant, which is part of the garbage treatment plant" (NHA, 1988). Even by August 1988, the NHA did not recognize that the solid waste management plans did not include incineration for anything other than hospital waste. We can see that the apparent commitment to waste recycling and scavenger re-employment was either not conveyed or not taken seriously. In light of this, one must question whether the commitment to assisting scavengers is real or feigned.

Finally, it is not clear whether there is a real commitment to providing for all persons affected by changes in the existing process of waste disposal. In theory, all scavengers and persons dependent on scavenging will be compensated for their loss of income. The plans, however, make no mention of other actors such as junk dealers. No studies have been made of announced or itinerant scavengers and how they would be affected by the proposed plans. Given that their numbers are unknown, and that many of them are homeless, how does the Taskforce plan on reaching them and compensating them for their loss of livelihood?

5.6.3 The Knowledge Gap

Several components of the proposed plans for scavengers reflect a deep ignorance of the community. For example, it is very clear that the Steering Committee did not consider on-site housing development until pressured to do so by the Aquino administration. Early planning documents clearly state that "the area will be developed into a park or any other suitable purpose." (Presidential Taskforce on Solid Waste Management, 1988c).

The proposed relocation to government sites was overwhelmingly rejected by the residents of Smokey Mountain. Given the residents' past history with relocation schemes, this seems understandable. The residents were so incensed at the thought of 'eviction' that they threatened to march on the President's palace. Tremendous pressure from the people, spearheaded by Father Beltran's personal interventions, squelched the relocation plans and the people were given guarantees of land tenure.

Practically, this unexpected demand for housing posed several challenges for the Technical Committee. The most obvious challenge was one of physical design: who would assume responsibility for the development of the area? A second obstacle was the community's lack of confidence in the good will of the administration. The people still feared eviction, and there was a marked lack of trust in the planning process. Also, the taskforce was forced to consider ways to meet the future housing and employment needs of approximately 1,400 residents earmarked for annual relocation to the government sites.

A further 10% of the population was also expected to participate in the Balik Probinsiya program. However, as of September 1988, no residents had applied and it was concluded that, given promises of on-site development, none would. For the reasons mentioned above, Smokey Mountain residents were unwilling to relocate. The plans were developed in a vacuum as the planners' failed to survey the needs and desires of the residents. As a result, the Taskforce's plan called for extensive relocation, when in actuality, the residents did not view relocation as a valid option.

It seems clear that the planners did not learn from their past mistakes. For example, the residents will be expected to travel to Carmona from Smokey Mountain (over 30 kms) in order to

work at the sorting plant. This proposal is reminiscent of the previous relocation scheme and its livelihood component. The sheer distance and expense associated with work in Carmona makes the 'Systems Absorption' component of the plan unreasonable. Unless the jobs related to the new waste management system are in close proximity to the newly developed community, it is unlikely that any of the the ex-scavengers will find employment in the recycling field.

The assumption that planners are all knowing is also reflected in the design of alternative means of livelihood and the lack of citizen involvement in the planning process. Consequently, the livelihood plans are largely not suited to the community and ignore the preferences of residents. Further, the opportunity to foster community self-reliance via community responsibility for on-site housing development or local resource recovery has been lost. These issues and their implications will be examined in greater depth in the following chapter.

CHAPTER 6 COMMUNITY PERSPECTIVES ON THE PLANNING PROPOSALS

6.0 INTRODUCTION

The plans of the Presidential Taskforce for Solid Waste Management have many implications for the scavengers of Metro Manila. From the perspective of the residents of Smokey Mountain, the provision of an alternative source of income is of the utmost importance. The Technical Committee on Scavengers has proposed several means by which to meet the financial needs of scavengers. These include 'systems absorption', skills training and formal employment. The feasibility of systems absorption was referred to in Chapter 5, sections 5.5.1 and 5.6. In this chapter, the strengths and weaknesses of two existing approaches to training and employment will be examined.

This author maintains that livelihood projects must be in keeping with the characteristics outlined in Chapter 4, section 4.6. Criteria by which to evaluate existing programs must be developed. Unfortunately, existing approaches to income generation will not meet the needs of displaced scavengers who have no skills and cannot compete in the marketplace.

The nature and extent of community participation in the planning process will also have a major impact on the residents. The planners' values regarding community involvement are particularly significant. If planners, for example, perceive themselves to be experts who do not require input from the community, they will consciously or unconsciously erect barriers to citizen participation. As no formal attempts were made by the Taskforce to involve the community in the planning process, the researcher conducted an independent survey of community members in order to sample their views and preferences. (See Appendix 2). The results of this study indicate that the residents were not informed of the plans and were never given the opportunity to present their priorities to the planners. Ways to redress wrongs and involve community members are provided at the end of this chapter.

6.1 BACKGROUND TO THE PROJECTS

In this chapter, the livelihood or income generating programs of the City of Manila (MEL) and the Self-Employment Assistance Foundation (SEAF) are examined. (The survey format is presented in Appendix 1). The criteria used by the researcher to judge the appropriateness of these projects, particularly in light of the plans to stop dumping at Smokey Mountain in the near future, are as follows.

1. Does it reach the target population?
2. Is it independent of scavenging?
3. Can one measure its success or failure?
4. Does it make appropriate skill demands?
5. Does it provide sufficient training?
6. Does it provide or lead to permanent work?
7. Does it provide sufficient income?
8. Can it provide livelihood immediately after the dump closure?

Given that the survival of many of families currently hinges on their daily access to refuse, alternative livelihood programs must be evaluated in terms of their ability to respond to the criteria listed above. Dependence on processing waste must be eliminated or turned into formal, economic gain.

6.2 THE CITY OF MANILA'S MANILA EXTEND LIVELIHOOD PROGRAM (MEL)

6.2.1 Background to the Program

The Manila Extends Livelihood Program was initiated in the late 1980's by Mayor Mel Lopez. Manila's Department of Social Services (M.D.S.S) oversees the social services needs of the City of Manila, not the Metropolitan Manila region as a whole. The M.D.S.S. describes the intent of the project in the following way.

This program, with a thrust on productivity and livelihood is an answer to the pressing economic problem being felt by majority [sic] of the city residents either because of high prices of prime commodities and scarcity of employment due to decelerated economic ventures in the country (City of Manila, 1988a).

MEL's three pronged program is intended to reach out to disadvantaged families with unemployed and underemployed members. The three main components of the program are: skills training, production, and the sale of subsidized goods. Other programs such as the capital assistance program and the special events program are run concomitantly in order to provide impetus to the livelihood project. The skills training programs in Smokey Mountain will now be examined in detail.

6.2.2 Skills Training

The skills training program is aimed at providing those interested in increasing their incomes or becoming self-employed with work related knowledge or skills. This strategy is used to satisfy a perceived demand for skilled workers, not only in the Philippines, but abroad as well. Other than the programs offered to the public via the Manila Manpower Development Center, the City is providing community-based skills training in areas such as hair cutting, hair styling, pattern making, hair curling, cosmetology and food preservation.

The City has conducted six training classes, all of which have lasted for three months. Each class has fifteen to twenty trainees. The dressmaking classes have at least 3 sewing machines and all necessary sewing materials. Each trainer is paid P2,000 per session. The cosmetology and hair science sessions follow the same pattern, except that the classes are larger, with 20-25 participants. The City provides all the necessary supplies.

It is important to note that the City of Manila does not provide or guarantee employment to the graduates of the skills training programs. In fact, job placement is not at all within the scope of the program. Trainees are encouraged either to apply for loans of P500 and establish their own businesses, or to seek placement through regular channels such as the Manila Manpower Development Centre.

6.2.3 Training in Dressmaking and Cosmetology

The training sessions were conducted in early 1988. The trainees received 36 sessions of training, and although they were given free materials, they were not paid. The trainer had received instruction at the local Manpower centre and provided the trainees with outlines of the training

sessions. In the case of dressmaking, the participants were trained on manual sewing machines, not high speed industrial ones which are used by large textile plants.

All of the persons in the training program were female. The social worker administering the program explained that males were preferred for the capital assistance program, while women were preferred for other services such as family life and skills training.

6.2.4 Survey Results

The major findings can be briefly summarized as follows. In both cases, prior to training, only one woman was a scavenger; most of the other trainees were unemployed. In total, only two trainees found subsequent employment. Most of the women were not able to become self-employed due to lack of materials and equipment. The lack of subsequent employment was perceived to be the greatest weakness of the program. The major suggestion for the improvement of the program was that the graduates be provided either with jobs or sources of income.

The components the participants wanted to see featured in the future livelihood programs were steady/permanent work and sufficient inputs such as capital and materials. Their main concerns about the dump closure related to losing their means of livelihood. (See Appendix 1 for complete survey results).

6.3 ANALYSIS AND EVALUATION

On paper, the City of Manila is dedicated to providing a "thrust on productivity and livelihood", and wants to tackle the problem of "scarcity of employment" (City of Manila, 1988a). The results of this investigation of MEL's livelihood projects indicate major shortcomings and suggest that there is no foundation upon which to base this review.

First, the choice of skills training projects does not appear to be in touch with the real demands of the market place. Surely market research should have been conducted prior to the implementation of the programs in order to determine the likelihood of successful job placement. From all indications, cosmetology and dressmaking are not in great demand; in fact they are oversupplied.

Further, training on manual machines would seem to be of little help to people seeking employment in factories which rely almost exclusively on high speed models. (This oversight is largely due to the project's limited operating funds). Inappropriate training, coupled with the lack of ready formal employment, places the graduates at a double disadvantage. Even if women want to apply for capital assistance, the maximum P500 loan is insufficient to buy a machine. One manual sewing machine, for example, costs over P2,000. Clearly, these women are forced to create their own jobs if they want to have a source of income.

Second, a target audience was not selected for the training. The training of commerce students clearly illustrates this point. The participants were not chosen on the basis of income or occupation. One also has to question why women were trained in traditional occupations such as cosmetology and dressmaking. Should women not be encouraged to diversify their skills?

Third, the decision not to place women with potential employers renders the entire project a failure. When the combined results of both projects amount to the employment of only two graduates, the objectives of productivity and employment clearly have not been met. This represents a non-sensical form of investment; training without subsequent employment only adds to the problem.

Further to this, the field workers implementing the program complained that they were not connected to the main office at City Hall and therefore, did not understand how the MEL program fitted in with the broader plans for the development of the area. The staff expressed frustration at the fact that Manpower (the local employment assistance bureau) would not match the women with work opportunities after graduation. The staff clearly recognized that the success rate in terms of employment was very low. They conceded that the demand for these types of skills was not as high as expected.

Fourth, there are ethical problems with not clearly explaining the objectives of the project. For example, none of the respondents correctly identified the goals of the program; most of the women thought that the project was supposed to provide them with livelihood. Further, the most common recommendation for the improvement of the project was the provision of income. The City should closely examine its position regarding job placement and/or job creation. If nothing else, the

City should stop contributing to the initially inflated, and ultimately dashed, expectations of the trainees.

The pessimism the women feel about the dump closure is a reflection of their economic insecurity. Perhaps if the participants had reliable sources of income they would not live in fear of outright poverty and hunger. Training people for unemployment is both irrational and irresponsible. Clearly this program cannot serve as a model for subsequent economic development at Smokey Mountain.

6.4 INTRODUCTION TO SEAF

The Self Employment Assistance Foundation Inc. (SEAF) is an NGO that organizes poor groups into cooperatives and assists them with the management of their businesses. The organization works through Community Production Centres (CPC's). SEAF acts to

provide for the initiation and sustenance of production-based activities on product lines with ready markets or with strong market potential, undertaken on a centre-based setting through organized production groups located in the communities itself [sic]. (Technical Committee on Scavengers, Livelihood Sub-committee, 1988b: 2).

According to SEAF, cooperatives help to increase family income. The cooperants do not just supply a labour pool, they share in the management and profit sharing of the operation. The participants secure a loan and run their own cooperative. If their project is successful, they can repay the loan after two years and own their cooperative outright. Training in practical and entrepreneurial skill development and "work motivation" counselling are provided by SEAF in order to promote the work effectiveness and management proficiency of the livelihood projects.

SEAF is responsible for the marketing and promotion of products and services produced by the CPC's at Smokey Mountain. SEAF serves as the data bank and client sorting-matching centre. The costs associated with the construction of the CPC facility and the training of its members are absorbed by the Technical Committee on Scavengers. SEAF has set three specific project objectives for the CPC's at Smokey Mountain.

1. Generation of significant income that could gradually suffice in meeting the needs of their respective families, and save for other needs.
2. Develop their production proficiency in novelty production directed towards shifting their production attention away from scavenging.
3. Maintain a ready source of employment that could open for the women better and wider income opportunities (Technical Committee on Scavengers, Livelihood Sub-committee, 1988b).

6.4.1 Training at the CPC

The skills training workshop on craft production, work motivation and job counselling was held in late March 1988. The SEAF program director was the sole resource person for a 14 day training session which focused on decorating wooden bangles and painting paper mache. The women were expected to design and paint items for international export. This required great artistic ability and strict quality control. The project was selected because of ready markets and SEAF's contacts in this industry.

Participants were chosen on the basis that they were residents of Smokey Mountain, that they were poor (i.e., earned less than P50/day) and that they showed a desire to change their situation. All of the candidates were women. According to the director they were selected for two reasons: 1) unemployed women were easier to recruit than male scavengers, 2) training was perceived to provide a form of birth control, since the women in training were home for shorter amounts of time and consequently had less opportunity to mate. The program did not intend to target scavengers or scavenging families per se.

The amount released for the training was P33,980. Of that amount, P9,980 was used to purchase inputs such as earrings, bracelets and paper mache objects. P22,000 was allocated for snacks and lunches for the 15 participants and the three trainers.

Initially there were 30 participants registered in the training program. However, 10 participants lost interest in the project, 7 could not bear the smell of the paint and thinner, and 3 found some other type of work. Consequently, several last minute participants were recruited and only 15 women completed the course.

In early May, there were graduation ceremonies for the women and a public exhibition of the products they had produced. P2,000 was divided among the graduates as an incentive to perform well in the future.

After graduation, SEAF matched the cooperative with a company exporting paper mache objects (Craftmill), but it neglected to oversee the negotiations of the contract. Consequently, women who had no previous experience with running cooperatives or signing business contracts entered into a business arrangement with Craftmill. They were to produce a large volume of decorated paper mache objects, for which they would be paid per piece. Both the designs and means of implementing quality control were left in the hands of the members.

This researcher's survey was carried out six weeks after graduation. During those weeks, the cooperative had managed to struggle along, but by August 1988, it had dissolved. When the researcher visited the CPC in June, she found no instructors and only three of the fifteen women working. Since supplies had not been purchased, most of the women had gone home. The few remaining women complained bitterly that they had never been paid. Craftmill had refused to pay for substandard work and therefore, the women had not earned any money during their first month of operation. The contract was never filled.

The demise of the project did not come as a surprise. As one social worker commented, "I always thought it was a strange project, very artistic". Clearly the work did not correspond with the women's knowledge or skill levels, and the managerial demands were far too high for the participants to meet.

SEAF recognized that the project was not viable and attempted to find a substitute project for the women. The only contract SEAF could secure was a rattan coiling project which paid the women 10 centavos per piece. Working a seven hour day, the women would have to wrap 71 coils per hour in order to make P50 per day. The women balked at the idea and refused to work. By the end of August the cooperative had been disbanded and was awaiting further funds.

Studies of other CPCs have revealed the following:

- 1) immediate funding increases morale,
- 2) continuous monitoring and supervision makes the participants feel secure and well supported,
- 3) standardized operating systems for securing orders, making deliveries, receiving items and making collections and payments must be established,
- 4) strict quality controls must be enforced (SEAF Year-end Report, 1987).

It is unclear why such lessons were not applied to Smokey Mountain. A lack of short term incentive, coupled with inadequate institutional support, doomed the project to failure.

6.4.2 Survey Results

In brief, the survey results were as follows. Most of the members had previously been unemployed; only one had been a scavenger. When women were asked their present occupation, not one considered herself employed at the CPC. Only half of the participants felt that their training had been sufficient; only one-third were able to apply their skills after graduation. Their main reasons for not working at the CPC were that the project was not ongoing and that there were no/insufficient funds.

The women surveyed wanted the program to start operating; provide steady work and sufficient materials. Almost all of the women said that steady or permanent work was the most important part of a livelihood program. Their main concerns about the dump closure were loss of income and hunger.

6.4.3 Evaluation

The CPC model is intended to promote self-reliance and provide a source of income. In the case of Smokey Mountain, it has failed to do either. For example, it did not reduce dependence on scavenging as most of the women had previously been unemployed. Further, training in bangle and paper mache production did not produce easily replicable or transferable skills and, therefore, when the CPC was disbanded, its members could not use their skills to find other employment.

There were a number of similar problems related to both the type of project and how its participants were selected. The initial project proposal, for example, clearly states that the proponent agency should "identify those that have skills or potential for required skills to ensure

production efficiency" (Technical Committee on Scavengers, 1988a) Given this mandate, why was there no screening of clients for artistic ability or interest? Further, what explanation can there be for the initial, insufficient training and subsequent lack of artistic direction?

The project clearly made inappropriate skills demands on the participants. In part this can be explained by the interests of the project director who considered himself an artistic person. He found the project creative and appealing; the skills requirements also seemed quite reasonable. The net result of such thinking, however, was that women who had no input into the nature or design of the project, or the extent of their training, were penalized for their lack of artistic ability.

From the participants' point of view, several issues need to be addressed. There seems to be little understanding of what a CPC is and how it is supposed to operate. How can workers be expected to run a cooperative when they do not understand how it is to function? Further, the people are not organized and do not have sufficient skills to run the project. In order to run a cooperative, the members need to have fairly advanced management, production, marketing and distribution skills. These types of skills were definitely not developed during the training sessions.

There also seems to be a critical lack of integrity or responsibility on the part of SEAF. For example, why were the women not given the option of receiving daily payment in lieu of food (amounting to P68 per day) during their training session? Why did SEAF leave the contract negotiation and project supervision to a group of ill-equipped women? SEAF's irresponsibility at this critical time placed in question its competence and commitment to the project.

In a very practical sense, the CPC project failed to adequately employ the women it trained. Not only was the training insufficient, and perhaps inappropriate, it also failed to lead to a reliable source of income. Consequently, it is not surprising that the women expressed doubts in the project and declared, after approximately 3 months of 'operation', that they "hope its starts soon". The lack of confidence in the CPC is further demonstrated by their stated fears of poverty and hunger once the dump is closed.

Some of these problems may be explained by institutional carelessness. For example, no evaluation had been conducted after the first two or three months of operation. By June it was clear

that the cooperative had folded. More fundamentally, a lack of appreciation of the unique needs of Smokey Mountain residents resulted in the cookie-cutter imposition of a 'tried and true' project on a powerless client group. For example, no consideration was given to the appropriateness of a product cooperative to the Smokey Mountain area. It has already been documented that scavengers are notoriously individualistic. Why, then, this emphasis on cooperatives which require tremendous collective organizational skill, dedication and patience?

Also, cooperatives take a relatively long time to become established and financially viable. Given that scavenging families overwhelmingly rely on daily income, why were cooperatives chosen for the model of alternative sources of income? How are these families to survive without income for long periods of time?

It was hoped that many CPC's would be functioning prior to the closing of the dump. Given the demise of this CPC, however, it remains to be seen whether cooperatives can provide a viable means of earning income at Smokey Mountain. Experimentation with this type of model definitely should not take place during the period directly before or after the dump closure. Rather, even before the dumping stops, programs which offer reliable sources of income, sufficient to meet the daily needs of all families, should be operating.

6.5 SUMMARY

Dependence on scavenging must be significantly reduced in the near future if families are to reconcile themselves with the imminent closure of the dump and seek alternative sources of employment. Since scavengers rely on daily income, such sources of income will have to be provided in tandem with the dump closure. Training programs which do not lead to wages are unacceptable. Cooperatives which lack direction and capable management cannot provide a reliable source of income at this crucial time.

Scavenging on old garbage until the official livelihood programs are established cannot be seen as a stopgap measure. Despite the Pollyanna suggestion of one Taskforce member, the residents will not be able to survive by scavenging off the old garbage for a few months if the

livelihood projects are not operational at the time of the dump closure. Formal, dependable employment will have to be made available immediately after the closure or the residents of Smokey Mountain will go hungry.

Given the criteria mentioned above, neither MEL nor SEAF can provide a model for economic development in the area. The MEL program will not provide direct employment or direct income. Training without employment is not an option for the residents of Smokey Mountain.

The CPC cannot function without overt supervision and subsidization. Even so, its members are not adequately trained either for the manufacturing of products or for the management of the cooperative. People need daily wages and cannot afford to struggle for months before regular contracts and payments are secured. Only projects which meet the aforementioned requirements should be promoted and funded by the Taskforce on Scavengers.

6.6 COMMUNITY PARTICIPATION AND PREFERENCE SURVEY

6.6.1 Survey Results

This section highlights the survey results. The survey instrument and the complete results are provided in Appendix 2. Only 57% of the residents claimed to know of the government's plans for the area. Males and females were equally likely to know of the plans. People from Barangay 129, however, were far less likely to know about the plans than people from Barangay 128. Residents who had heard of the plans were most likely to have learned of them through community leaders (17%), the media (13%), and government representatives (11%).

Most of those who knew of the plans (26%) described them strictly in physical terms, and only 2.6% described their physical, economic and social dimensions. Significantly, 9% of the respondents provided incorrect descriptions of the plans. Most people (35%) felt that the plans would affect them positively. It is disturbing to note, however, that 26% of those who said they knew of the plans still believed that the plans would affect them negatively.

Most people (60%) felt that the community was involved in the planning process and could readily justify their participation. However, less than 50% of the respondents felt they had a

representative on the Technical Committee on Scavengers. The most popular representatives (30%) were community leaders such as Father Beltran and members of the Katipunan, none of whom actually sat on the Technical Committee.

When residents were questioned about their preferences, a pattern of priorities emerged. This pattern was similar for both males and females. While the rankings were not homogeneous, an overall preference structure could be identified:

1. Land tenure
2. Livelihood
3. Housing
4. Water/electricity

People were asked what types of alternative livelihood they would like to see provided for residents of Smokey Mountain. Most residents responded with concrete suggestions such as opening a beauty salon. These answers were grouped and yielded the following results:

Self-Employment	38 %
Factory Employment	34 %
Vague/No Answer	26 %
Cooperative Work	02 %

Obviously people preferred formal or self-employment over cooperative employment. Based on the survey results, there seems to be next to no popular support for product cooperatives at Smokey Mountain.

6.6.2 Analysis and Implications :

The survey results imply that the planners saw community development at Smokey Mountain as a means of improving people's socio-economic status and not as an end in itself. First hand observation suggests that the planners saw themselves as benevolent communicators and thinkers. Hollnsteiner's depiction of such planners seems apt. "Although they verbally advocate people's participation, in practice they bring them into the picture only after the major decisions have been made" (Hollnsteiner, 1973).

The extent of solicited community participation was limited to asking three open ended questions in the City of Manila's demographic survey of the area ²². From the point of view of the City, the survey was "in itself a community consultation process" (City of Manila, Dept. of Social Welfare, 1988a). This token attempt at consultation, however, did not in any way require dialogue on the part of the planners. It can be concluded that there was no meaningful attempt to secure the active, equal involvement of the community members.

It appears to this researcher that members of the Presidential Taskforce fell short on many of their basic professional responsibilities. This negligence even extended to standard planning procedures. For example, while the community's actual dependence on scavenging as a source of livelihood had not been determined, the planners were content to rely on the City of Manila's survey data. In contrast to the City's findings, however, the community respondents' high ranking of livelihood as a priority need suggested that scavenging and related activities play a significant role in the economic life of the community. How can Manila's planners hope to equitably compensate those whose sources of income have been cut if they have no understanding of the magnitude of dependence on scavenging and its linked activities?

In addition, the planners made no attempt to determine the multiplier effect of the plans on either the cycle of scavenging in general or on the community in particular. The nature and extent of this economic impact was unknown when the plans for compensation were being devised. Planners from the technocratic, rational school would agree that this type of information is critical in both the plan development and impact assessment stages.

The planners also failed to disseminate information to the affected population. Consequently, confusion and ignorance about the plans abounded in the community. One has to ask why all the residents were not informed of the proposed plans by designated members of the Taskforce? Why did members of the Taskforce not arrange regular site visits and hold public forums at Smokey Mountain? One official visit, after the initial formation of the Presidential Taskforce on Waste

²² The survey was conducted during one week in July 1988, long after the plans had been developed and adopted.

Management, was hardly sufficient experience 'on the ground'. Other broadly based programs, such as the Tondo Foreshore Project, suggest that community involvement has a crucial role to play in the contemporary Philippine planning context (Phillips and Yeh, 1983).

To begin to understand the reasons behind the lack of community ownership of the project, let us examine the composition of the Technical Committee for Scavengers. The members of the Committee were almost exclusively government employees from both the national and local levels. Only one NGO, The Institute for the Protection of Children, served on the Taskforce. There were no community representatives on the Technical Committee for Scavengers. Occasionally, Father Beltran attended on-site sub-committee meetings, but there was no consistent local presence on the Committee.

This is not to imply that residents were overtly banned from attending the meetings. Rather, there was no institutional mechanism, or no institutional will, to facilitate the involvement of the community members. For example, the meetings were held far away from the dump-site. Not only were the meetings inconveniently located (at least one hour away from Smokey Mountain), there were no provisions made for any type of transportation allowance for the would-be representatives. Consequently the potential representatives were forced to pay the transportation costs out of their own meagre wages if they wished to attend the meetings.

Further, meetings were usually started at 9:00 or 10:00 a.m. and concluded at 12:00 p.m. Therefore, attendance at such a meeting could represent up to 6 hours of lost work time. Meetings in the afternoon during the lull in dumping, on the other hand, would have been more appropriate to the scavengers work cycle. Again, no thought was given to compensating representatives for their time away from work. All of these factors suggest that the scavengers were structurally prohibited from participating in the planning for their community.

The planners were guilty of paternalism as well as elitism. For example, prior to this survey, no attempts were made to determine the priorities of the community members. The planners seemed to assume that they knew what the people needed and consequently showed a blatant disregard for the views of the scavengers. For example, when one of the senior Taskforce members was asked

how the Taskforce would respond if livelihood was not rated the community's number priority, the researcher was told: "I don't give a shit about their priorities. If they don't want livelihood now, they'll want it soon enough".

Planning documents reveal the perspectives of those planning for the area. For example, the livelihood program plan is intended to prevent the scavengers' "absolute degeneration". The objectives of the program include scavengers "upgrading their production and work proficiency" and developing "their work appreciation and attitudes towards new productive direction and functioning" (Technical Committee on Scavengers, 1988c). This suggests that scavengers presently do not appreciate the value of work and are unproductive.

Finally, the planners seek to uplift "their [scavengers'] social function to improve their aspiration and performance as family participants and community members" (Technical Committee on Scavengers, Livelihood Sub-committee, 1988a). Once again, this suggests that scavengers have no aspirations and do not fulfill a valuable societal role. From both environmental and economic perspectives, this position is untenable.

The explicit and implicit views and values of the planners naturally extend to the types of plans they propose. The issue of cooperatives reflects the tension between popular wisdom and formal training. It seems clear that the community was expected to comply with the pre-set plans of the Technical Committee, even if cooperatives had no appeal to the very people who were to manage them. (The impulse to pursue cooperatives may have had liberal rather than technical roots, however, even well intentioned liberalism is misguided if it does not suit the intended beneficiaries). The residents were denied any real opportunities to have input into the formulation of the plans and the planners appeared to lack information about the nature of the community.

The planners, it appears, were prepared to pay lip service to public participation and community organization if this did not require them to engage in genuine dialogue with the residents. Even the City of Manila's report on Smokey Mountain concluded that "for a meaningful and realistic approach to this problem, a series of dialogues and consultation [sic] should therefore be evolved with its residents. This is the essence of democracy " (City of Manila, 1988a). This commitment to

democracy, however, was not put into practice. Community participation does not imply mobilizing support for foregone conclusions.

Hollnsteiner, in analyzing the Philippine context, concluded that

planners, administrators and managers approach people's participation with some reluctance. They fear it will lead to delays in implementation because an array of contradictory recommendations will have to be reconciled (Hollnsteiner, 1973).

She goes on to detail the merits of community participation. People should be involved for the following reasons. First, participation will improve program results: since community members have had input into the design process, the designs will more closely reflect people's lifestyles and aspirations. Second, planners need to be exposed to alternative perspectives; participation can result in greater understanding of people's thinking processes. For example, given a history of relocation, cynicism regarding government promises may well be considered rational, even by the planners. Third, participation helps to build an enabling and cooperative spirit in the community. It helps to give community members a shared sense of control over a complex environment. Fourth, participation is the right of any citizen in a democracy (Hollnsteiner, 1973).

Community development in its most potent sense, results in the mobilization of the poor and in the development of a sense of collective self-reliance and control. The planning process examined here represents a lost opportunity to tap into people's interest and enthusiasm about their community and their shared future.

If there is any institutional will to change the existing approaches, much can be done to facilitate the participation of community members in the planning process. Institution-building, after all, does not simply refer to the construction of structures and the provision of services. Rather, institution-building suggests promoting community self-reliance to the point where the community can govern itself and meet its basic needs. This can be achieved by developing organizational capacity and fostering local democracy. For example, new businesses could focus on producing goods required by the community and not a foreign country. People could also assume control of some of the on-site development. Rather than having the NHA construct pre-fabricated dwellings, the residents could

build their own homes. Training in construction would be of long term benefit and the community could take pride in its accomplishments.

Such examples are given to illustrate modest ways in which the community could be 'developed' and 'organized' for its own benefit. In the next chapter the researcher will further examine means by which to foster the involvement of the residents of Smokey Mountain in their community planning process.

CHAPTER 7 PLANNING TENSIONS AND STUDY RECOMMENDATIONS

7.0 INTRODUCTION

This case study has helped to highlight many of the tensions inherent in the planning process. The role of values in this process has been underscored in the hope that the Manila planners will become more aware of their biases and how these biases eventually affect the community of Smokey Mountain. Specific action points are recommended in order to ameliorate some of the negative impacts associated with the plan. In particular, guarantees regarding alternative sources of income must be provided, prior to the closure of the dump, to all persons negatively affected by changes in the existing system.

The radical planner can learn several lessons from this exercise. For example, the role of the planner employed by the state must be questioned. Whose interests does the planner serve while acting on behalf of the 'public good'? Are planners really in the business of power sharing? These questions provide a jumping board for further inquiries into planning practice, its limitations and opportunities.

7.1 MAJOR TENSIONS

There are at least four types of conflict embedded in the the solid waste management plans of the Taskforce. All of these tensions are reflective of underlying values and therefore cannot be solely argued on a rational level. Such beliefs are deeply rooted and, therefore, any changes in practice must be prefaced by major shifts in orientation (Habermas, 1976).

7.1.1 Metropolis vs. Community

While problems such as the delivery of an effective solid waste management system require metropolitan answers, their scale does not preclude community participation. Both levels of civic organization can be involved in a dialectic process of trade-offs and compromises. Communities can be integrated into large projects if there is the institutional will to devote the time and funding necessary to do so.

In the case of Manila, a commitment to waste separation at source, combined with education regarding composting techniques, can serve the larger interest by reducing the overall volume of disposed waste. Also, by disseminating information to communities during the initial planning stage, the planners are more likely to secure their cooperation, and therefore increase the likely success of the project.

7.1.2 High Technology vs. Informal Practices

While aid programs often promise sophisticated machinery with technical assistance; they also foster dependence on more developed nations and threaten to exacerbate existing levels of unemployment and underemployment. Bigger is not always better. Conversely, informal processes are labour-intensive, require little capital and are very efficient. If planners can overcome prejudices against what they perceive to be backward practices, not in keeping with modern cities, then the desirable features of both approaches can be integrated into an appropriate waste management system.

While all informal waste recovery processes will be eliminated from the proposed system, the planners can affirm their stated commitment to the use of labour intensive, relatively inexpensive disposal and recuperation practices which rely on locally produced parts.

7.1.3 Efficiency vs. Equity

Solutions to metropolitan problems should not be provided at the expense of the poor, who are least equipped to argue with faceless and imposing bureaucracies. For example, while proposals to develop Smokey Mountain into a park may be financially expedient, they ignore the rights of residents to shelter and livelihood. Further, if no scavengers are employed in a highly mechanized waste disposal system, they must be provided with other sources of income. Systems cannot take priority over people.

7.1.4 Elitism vs. Egalitarianism

Planners are civil servants who are responsible to the public they serve. Their privileged status does not exempt them from informing and consulting the people for whom they plan. Dialogue between such diverse groups of people will inform planners, empower citizens and expedite the

planning process in general. Planners need to confront their own elitism and discover ways by which to overcome structural barriers to egalitarian participation.

In the case of Smokey Mountain, planners must make more field trips and arrange meetings with the residents. At these meetings they should not present finalized plans but should solicit people's input. A sincere effort should be made to schedule formal Taskforce meetings at times and locations that encourage the attendance and participation of representatives from Smokey Mountain. Finally, as community members have demonstrated that they can rationally present and defend their preferences, their views should be reflected in the final plans. This is the test of public participation.

7.2 IMPLICATIONS FOR PLANNING

There are several concrete issues that must quickly be resolved if long term damage is to be avoided. First, both itinerant and announced scavengers cannot be overlooked in this planning process. Admittedly, these groups will be very difficult to reach since they are spread over Metro Manila and do not remain stationary. Nevertheless, their invisibility will have to be overcome: the number and type of itinerant scavengers will have to be determined. Also, their needs may be different than those of the scavengers at Smokey Mountain; plans must be tailored to suit them.

Second, planners must become involved in the empowering of the community of Smokey Mountain. Community organizations must be strengthened and livelihood projects which promote self-sufficiency should be developed. Leadership training should be provided in order to foster community control and self-reliance. Concrete steps can be taken in this direction. For example, both Barangays can be informed about the proposed plans. Information campaigns should focus on Barangay 129 where there is little knowledge of the plans. Misleading and erroneous information has caused great anxiety and wariness among the residents. This lack of understanding has bred cynicism and distrust of the government's intentions.

Also, the question of confidence must be addressed, particularly as it relates to the issue of relocation. For example, some people were very reluctant to participate in the researcher's survey as they felt that if they did not speak with one voice, or if they complained, the community would be

demolished. The residents were still waiting for physical confirmation of the President's pledge not to relocate them. At the very least, the confidence of the people could be gained by providing accurate information and encouraging open discussion. Visible projects would also help the government establish credibility and instill confidence in the planning process.

Third, the question of dependence on scavenging must be settled. For example, while the City of Manila study indicates that only 2,737 community members were involved in scavenging, the community's high ranking of livelihood as a developmental objective suggests that there must be a significant, if secondary, dependence on scavenging. This is further confirmed by the fact that the fears of the women involved in the livelihood projects almost exclusively dealt with the loss of income due to scavenging.

Differences in preferences between the Barangays should also be considered. Residents of Barangay 129 rated land tenure their number one priority; they also ranked housing higher than residents of Barangay 128. In contrast, residents of Barangay 128 ranked livelihood their number one priority. This would suggest that there is more dependence on scavenging in Barangay 128. Presumably more of the residents of 129 have jobs outside Smokey Mountain and, therefore, their sources of income would not be threatened by the dump closure. The differences between the two Barangays must be carefully examined in order to maximize the benefits of the proposed plans.

Fourth, existing levels of household income must be determined in order to guarantee similar levels of income after the dump closure. This will prove to be a difficult task since there are no accurate gauges of secondary income such as that provided by working children. Also, scavengers tend to deflate their earnings for fear that they will lose some of the services presently available to poor groups. None-the-less, this total household income will somehow have to be estimated and compensated for.

Finally, new means of employment that provide regular work and decent wages will have to be provided. Residents will eventually face additional expenses such as paying the 'mortgages' on their new homes. Also, children will be sent to school, and supplies such as uniforms and books will have to be purchased. None of the programs presently operating in Smokey Mountain can provide

stable, well paying sources of income. CPC's seem particularly unsuited to the community. Clearly other sources of formal employment will have to be made available.

For example, agreements with companies that could employ skilled and unskilled labourers from Smokey Mountain could be struck. For example, in exchange for tax exemptions, companies might be willing to sign long term contracts with residents who would not normally qualify for such positions. (Many factories require their non-skilled workers to have completed high school). Such an arrangement could guarantee employment at the time of closure, make appropriate skill demands, provide steady employment and ensure adequate wages.

7.3 ACTION POINTS

The researcher recommends that the following steps be taken in the immediate future:

1. Initiate dialogue directly with the community. Ask members of the Katipunan about ways to involve residents in the planning process.

Responsibility: Presidential Taskforce on Waste Management

2. Make a public commitment to the following:
 - all persons negatively affected by the plans will receive compensation,
 - opportunities to maintain household income will be made available to all such persons,
 - the dump will not be closed until alternative sources of livelihood are available to all affected persons.

Responsibility: Presidential Taskforce on Waste Management

3. Determine the number of announced and itinerant scavengers and develop programs and strategies appropriate to their needs.

Responsibility: Technical Committee on Scavengers

4. Devise livelihood programs that provide permanent work at reasonable wages for residents of Smokey Mountain.

Responsibility: Technical Committee on Scavengers

7.4 LESSONS

The Smokey Mountain planning exercise was not designed to empower people. It seems that the goals of an enabling planner could not be realized in this type of setting. The use of the rational

planning model resulted in the preservation of the status quo and the consolidation of the planner's expert role. Further, as most of the planners seemed quite comfortable with the rational planning model, they did not re-evaluate their assumptions. Clearly a special effort would have to be made in order to abandon the top-down planning approach and risk the consequences of public involvement.

As is the case in every situation, there were some planners who were critical of the process, but they felt powerless to change the situation and feared that voicing their opinions would result in their dismissal. Their frustration led them to create their own non-governmental organization which, they felt, could potentially meet the needs of the residents in a more sensitive and effective manner.

The plans of the Taskforce were not better or worse than many plans produced in developing and developed countries. The attitudes underlying the plans, however, must be challenged if planning is to become a progressive, enabling profession. This case study has caused the researcher to re-examine where a planner's loyalties should lie. All planners, whose recommendations may affect the lives of thousands of people, must ask themselves whose interests they are promoting. One conservative NGO working in the Philippines has concluded that planners must

define their purposes and their relationships to the communities they serve. Those purposes must focus on supporting the self-reliant livelihood strategies of the people themselves in ways which achieve more productive use of local resources. This cannot be achieved by the simple issuance of new policy directives. It requires a fundamental reorientation of problem identification and problem solving methodologies; and a corresponding reorientation of organizational structures and management systems to support the new approach. A second step is to recognize that planning methods are not value free and that organizational structures are not policy neutral (Korten, 1985: 7,8).

7.5 CONCLUSION

The community development of Smokey Mountain should represent the best thinking and focused action of both the government and its citizens. The interests of the powerless few should not be sacrificed in order to satisfy the needs of the impersonal metropolis. Empowering, sensitive plans must be developed if long term solutions to urban unemployment and poverty are to be addressed. These plans must be firmly rooted in the community and based on partnerships rather than rigid

hierarchies. Without these prerequisites, the plans for Smokey Mountain, no matter how rational or expedient, are bound to fail. The people of Smokey Mountain deserve better.

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APPENDIX #1 LIVELIHOOD SURVEYS

1.0 GENERIC LIVELIHOOD SURVEY

- 1) Present Occupation (s): _____
- 2) Occupation before joining the program: _____
- 3) Why did you decide to join the program? _____

- 4) What did your family think of you joining the training program? _____

- 5) Were you given any skills training? Yes _____ No _____
(If No, go to question 12)
- 6) If Yes, how long did you attend the skills training? _____
- 7) Did the training program teach you any skills? Yes _____ No _____
(If No, go to question 9)
- 8) If Yes, what skills did you learn? _____

- 9) Was the training sufficient for the type of work that was available afterwards?
Yes _____ No _____
- 10) What was the best part of the training? _____

- 11) What was the worst part of the training? _____

- 12) Have you worked with the program after taking the training? Yes _____ No _____
- 13) If No, why not? _____

- 14) If Yes, how long have/did you work there? _____
- 15) Have you had any difficulties working with your skills? Yes _____ No _____
(If No, go to question 17)
- 16) If Yes, please explain what kind of difficulties: _____

- 17) How many hours, on average do/did you work per week? (DO NOT count time spent cooking, eating, waiting, etc?)

- 18) What has been your income from your work to date: _____
- 19) What are your wage expectations per day: _____
- 20) Can you please explain the goals of the livelihood project and how it is supposed to operate?

- 21) What are the strengths of the livelihood program at Smokey Mountain?

22) What are the weaknesses of the livelihood program at Smokey Mountain?

23) Would you like to see any changes in the program? Yes _____ No _____
(If No, go to question 25)

24) If yes, what are they?

25) Do you think that this livelihood model can effectively meet the needs of people seeking alternative sources of income at Smokey Mountain? Yes _____ No _____

26) Please explain: _____

27) What do you think are the main components of an effective livelihood program? _____

28) Have you ever expressed your views about the program to any of the staff?
Yes _____ No _____

29) Have you ever been consulted about a decision relating to the program?
Yes _____ No _____

30) What do you think you will be doing once the dumping stops at Smokey Mountain?

31) What are your main concerns about the proposed dump closure?

ADDITIONAL COMMENTS:

NOTE: MULTIPLE ANSWERS WERE ALLOWED AND WERE CALCULATED IN THE TOTAL RESPONSES.

1.1 SUMMARY OF RESULTS: MEL DRESSMAKING SURVEY

N=21

1. Previous occupation	
None	12
Seller	6
Scavenger	1
Sewer	1
No Answer (NA)	1
2. Why did you join the MEL program?	
To learn new skills/gain knowledge	17
To earn an income	4
To help my family	1
NA	1
3. What was your family's reaction to your joining the program?	
Happy/agreeable	18
No reaction	3
4. Did you finish the training?	
Yes	19
No	2
5. If No, how long did you attend?	
More than three weeks	1
Half a month	1
6. Why did you withdraw?	
Cannot perform other duties at home	1
Always felt sick - didn't want to back out	1
7. Did you learn any skills from the training?	
Yes	17
No	0
NA	4
8. What Skills did you learn?	
Pattern making/sewing	18
How to take care of my teeth	1
NA	2
9. Was the training sufficient for the work that was available afterwards?	
Yes	14
No	5
NA	2
10. What was the best part of the training?	
Using the sewing machine	6
Pattern cutting	5
Sewing	4
Learning new skills	4
NA	2

11. What was the worst part of the training?	
None	5
Cutting patterns	2
No materials to work with	2
When the machine broke down	2
Ruining the material due to my lack of skill	2
Having to quit the program	1
Finishing the training	1
NA	6
12. What is your present occupation?	
Unemployed	12
Seller	5
Sewer	2
Scavenger	1
Factory worker	1
13. Were you able to work with your skills after the training?	
Yes	8
No	11
NA	2
14. Did you experience any difficulties applying your skills?	
Yes	13
No	8
15. What types of difficulties did you experience?	
No materials/equipment	11
No work	1
NA	9
16. How many hours do you work in one week?	
Sewers work 13 and 18 hours per day	
Vendors work 8 hours per day	
The factory workers works 8 hours per day	
The scavenger work many hours per day	
17. How much have you earned since graduation?	
Sewers earn P2,900/month and P600/month	
Vendors sometimes earn nothing	
Scavengers earn P20/day	
Unemployed had earned nothing	
18. What are your wage expectations per day?	
Sewers expect P80-100/day and P50/day	
Vendors expect around P100/day	
The factory worker has no expectations	
The scavenger expects more	
Unemployed expect enough for expenses, depending on the work	
19.. What are the goals of the MEL program?	
To provide livelihood	4
The physical development of Smokey Mountain	4
Good/helpful goals	3
They are not operational yet	2

Giving unity	2
Teaching skills	1
NA	5
20. What are the strengths of the MEL program?	
It will be good when it keeps its promises	2
Cannot say since don't know its future plans	2
Provides a livelihood program	2
Teaches skills	2
Caters to poor people	1
The improvement of Smokey Mountain	1
NA	9
21. What are the weaknesses of the MEL program?	
People are not given jobs	4
None, not many weaknesses	2
Has not provided the physical development	1
People are not united in the development	1
If not willing to learn, no attention is given	1
NA	12
22. Would you like to see any changes in the program?	
Yes	14
No	4
NA	3
23. If Yes, what changes?	
To be provided with jobs/income	7
Provide physical development/social services	5
NA	9
24. Is the MEL model appropriate for Smokey Mountain?	
Yes	18
No	2
NA	1
25. Please explain your answer:	
Of those that answered YES:	
Helps alleviate poverty	5
Helps improve the community	3
Gives useful training	2
Makes promises	2
Changes attitudes	1
NA	2
Of those that answered NO:	
Cannot apply their skills/find a job	3
NA	5
26. What are the essential components of a livelihood program?	
Steady/permanent work	9
Sufficient inputs eg. capital/materials	4
Additional source of income	2
Provide income for daily needs	1
Self-Management	1
NA	4
27. Have you expressed your views to the staff?	
Yes	8

No	9
NA	4
28. Have you ever been consulted about a decision related to the program?	
Yes	11
No	6
NA	4
29. What do you think you will be doing once the dump is closed?	
Seeking other work	9
Using training from MEL	3
Be given other income at Smokey Mountain	2
Rely on the MEL program	2
Continue with present work	2
NA	3
30. What are your concerns about the dump closure?	
Losing source of livelihood	10
Have no concerns	3
Hunger	2
Relocation/eviction	2
Robbery	1
NA	3

1.2 SUMMARY OF RESULTS: MEL COSMETOLOGY SURVEY

N=16

1. Previous occupation	
None	12
Student	2
Self-employed	2
2. Why did you join the MEL program?	
To learn new skills/gain knowledge	12
To earn a living/additional income	9
3. What was your family's reaction to your joining the program?	
Happy/agreeable	12
No reaction	1
Wanted me to learn	1
NA	2
4. Did you finish the training?	
Yes	10
No	6
5. If No, how long did you attend?	
Approximately one month	5
Approximately one week	1
6. Why did you withdraw?	
The trainer was sick and stopped coming	5
Not capable	1
7. Did you learn any skills from the training?	
Yes	11
No	2
NA	3
8. What Skills did you learn?	
Manicure and hair cutting/perming	9
Paper mache and bangle design	2
NA	2
9. Was the training sufficient for the work that was available afterwards?	
Yes	7
No	7
NA	2
10. What was the best part of the training?	
Learning new skills in cosmetology	11
Mingling with people	4
None	1
NA	4
11. What was the worst part of the training?	
None, everything was good	5
Difficulty with the work	3

No materials to work with	1
NA	7
12. What is your present occupation?	
Unemployed	10
Seller	3
Manicurist	1
Scavenger	1
Student	1
13. Were you able to work with your skills after the training?	
Yes	12
No	4
14. Did you experience any difficulties applying your skills?	
Yes	13
No	2
NA	1
15. What types of difficulties did you experience?	
Lack of materials/equipment	5
Insufficient training	4
It was all new, found it difficult	1
NA	3
16. How many hours do you work in one week?	
The one manicurist works 4 hours per day	
17. How much have you earned since graduation?	
Manicurist earns P20/day	
Scavenger earns P40/day	
Sellers both earn P50/day	
Unemployed had earned nothing	
18. What are your wage expectations per day?	
Manicurist expects P64/day	
Scavenger expects P25/day	
Sellers expect over P60/day	
Unemployed expect from nothing to over P70/day	
19.. What are the goals of the MEL program?	
To provide people with jobs	9
To improve their welfare	3
NA	3
20. What are the strengths of the MEL program?	
It provides a livelihood program	3
It lends out capital	4
It gives unity to the people	1
Don't know	1
NA	9
21. What are the weaknesses of the MEL program?	
None	4
People are not given jobs	1
Disunity in the project	1
NA	10

22. Would you like to see any changes in the program?	
Yes	13
No	2
NA	1
23. If Yes, what changes?	
To be given jobs after the training	4
More projects	4
More support (money & materials)	1
More competent trainers	1
No changes	1
NA	9
24. Is the MEL model appropriate for Smokey Mountain?	
Yes	12
No	4
25. Please explain your answer:	
Of those that answered YES:	
The MEL project is a help	4
Learned a lot	2
Earning and living will be easy if we have capital & materials	1
There should be more products	1
There should be additional livelihood	1
When dumping stops, remove the drug addicts	1
NA	2
Of those that answered NO:	
The trainer didn't teach well	2
I cannot find a job after the training	2
26. What are the essential components of a livelihood program?	
Steady/permanent work	11
Provides income for daily needs	4
Self-Management	3
Sufficient capital	2
27. Have you expressed your views to the staff?	
Yes	8
No	8
28. Have you ever been consulted about a decision related to the program?	
No	10
Yes	6
29. What do you think you will be doing once the dump is closed?	
Seeking other work	6
Be given other income at Smokey Mountain	4
If given capital, will start my own business	3
Use the skills learned at the MEL program	2
Nothing since have no resources	1
30. What are your concerns about the dump closure?	
Losing source of livelihood	14
Have no concerns	1
Relocation/eviction	1

1.3 SUMMARY OF RESULTS: CPC SURVEY

N=15

1. Previous occupation	
None	9
Vendor	2
Scavenger	1
Laundry woman	1
Manicurist	1
NA	1
2. Why did you join the CPC?	
To earn additional income	9
To learn new skills	7
NA	2
3. What was your family's reaction to your joining the program?	
Thankful/supportive	7
Couple was upset/quarrelled	4
None	1
NA	2
4. Did you finish the training?	
Yes	11
No	4
5. If No, how long did you attend?	
3 days	1
1 day	1
2 weeks	1
NA	1
6. Why did you withdraw?	
Felt dizzy (due to paint thinner)	2
Didn't know how to draw	1
Got sick	1
7. Did you learn any skills from the training?	
Yes	15
8. What Skills did you learn?	
Paper mache and bangle design	10
Painting	3
Cleaning/varnishing	1
Making bags	1
Applying primer	1
9. Was the training sufficient for the work that was available afterwards?	
Yes	8
No	6
NA	1
10. What was the best part of the training?	
Designing	6

Painting	1
Increase in knowledge	1
Learning how to start a business	1
Good as a whole	1
NA	5
11. What was the worst part of the training?	
Smell of the solvent	2
Insufficient materials	2
Making bangles	2
Drawing	1
Misunderstandings between the trainees	1
NA	7
12. What is your present occupation?	
Unemployed	9
Scavenger	2
Vendor	2
Teacher	1
NA	1
13. Were you able to work with your skills after the training?	
Yes	6
No	8
NA	1
14. What types of difficulties did you experience applying your skills?	
The project is not regular, ongoing	3
No funds/insufficient funds	3
I didn't learn how to draw	1
I don't like the smell of paint thinner	1
15. After the training, how long did you work at Vitas?	
One to two weeks	2
Half a month	1
One and a half months	1
From then until now	1
NA	1
16. How many hours do you work in one week?	
Nine to ten hours per day	2
Eight hours per day	2
Six hours per day	2
17. How much have you earned since graduation?	
P252	4
P30	1
Nothing	1
18. What are your wage expectations per day?	
P30	5
It depends	1
19.. What is a CPC and how is it supposed to work?	
Geared to providing livelihood	5
NA	10

20. What are the strengths of the CPC program?	
Availability of supplies and materials	5
It 's part of a bigger program	2
It helps	2
Joint effort	1
NA	5
21. What are the weaknesses of the MEL program?	
Insufficient materials	4
Insufficient skills	2
Don't know how much we'll earn	1
NA	8
22. Would you like to see any changes in the program?	
Yes	12
No	2
NA	1
23. If Yes, what changes?	
Start the project	5
Provide steady salary	5
Give sufficient materials	3
Work should be done on time	1
NA	4
24. Is the CPC model appropriate for Smokey Mountain?	
Yes	10
No	2
NA	3
25. Please explain your answer:	
Of those that answered YES:	
Good if it provides a steady job	3
It helps a lot	2
It will be good if realized	1
Good only for women since it's part time	1
NA	2
Of those that answered NO:	
Pay is small or not given	1
NA	4
26. What are the essential components of a livelihood program?	
Steady/permanent work	6
Provides income for daily needs	1
Pays at least P30 per day	1
Sufficient time and capital	1
All examples given above are necessary	1
Knowledge of the situation to determine whether or not the people will earn	1
NA	3
27. Have you expressed your views to the staff?	
Yes	10
No	3
NA	2

28. Have you ever been consulted about a decision related to the program?	
No	9
Yes	1
NA	5
29. What do you think you will be doing once the dump is closed?	
Find a job	7
Nothing	2
Continue vending	1
Use the skills learned at the CPC	1
NA	2
30. What are your concerns about the dump closure?	
Losing source of livelihood/poverty	13
Relocation/eviction	2
Hopefully will have other source of income before closure	2

APPENDIX #2 COMMUNITY SURVEY

2.0 COMMUNITY SURVEY

1. Sex: Male _____ Female _____ 2. Age: _____
3. Residence: Barangay 128 _____ Barangay 129 _____
4. How long have you lived at Smokey Mountain? _____

In 1987, the President created a Taskforce on Waste Management which was mandated to study the existing waste management situation in the Metropolitan Manila Area. The Taskforce was to recommend a new waste management program and to plan for the future development of existing dump sites such as Smokey Mountain.

5. The Presidential Taskforce on Waste Management has proposed that all dumping of garbage at Smokey Mountain be stopped by 1989/1990. Are you aware of this plan?
 Yes _____ No _____
 (If No, go to question 9)

6. If Yes, how did you hear of the plan? _____

7. Please explain, to the best of your knowledge, what the national government is planning to do with the area around Smokey Mountain. _____

8. How will you and/or your family be affected by these plans? _____

9. The President has promised that the residents of Smokey Mountain will not be relocated. What is your response to this? _____

10. Do you want the national government to become involved in the area?
 Yes _____ No _____

11. If Yes, please explain: _____

12. If No, please explain: _____

13. If any of the following could be provided to the area, how would you rate these? Rank them in order of your preference, with 1 being the most important, and 7 being the least important.

- | | |
|----------------------|-------|
| a) free education | _____ |
| b) land tenure | _____ |
| c) housing | _____ |
| d) water/electricity | _____ |
| e) employment | _____ |
| f) skills training | _____ |
| g) health services | _____ |

14. What type of alternative livelihood opportunities do you think would be best suited to Smokey Mountain after the closure of the dump? _____

15. To your knowledge, has your community been involved with the Taskforce in planning for the future of Smokey Mountain? Yes _____ No _____

16. Should the community be involved in the planning process? Yes _____ No _____

17. If Yes, why _____

18. If No, why not? _____

19. Does anyone represent you to the Taskforce? Yes _____ No _____

20. If Yes, who? _____

21. How can you contribute to the planning process? _____

2.1 RESULTS OF THE COMMUNITY SURVEY

N=350

1. Sex	
Male	51%
Female	47%
NA	02%
2. Age	
15 to 29	39%
30-44	37%
45-39	13%
60-74	05%
0-14	01%
NA	05%
3. Residence	
Barangay 128	50%
Barangay 129	46%
NA	04%
4. Length of Residence	
1 to 5 years	35%
6 to 10 years	18%
21 and more years	17%
16 to 20 years	12%
11 to 15 years	10%
NA	08%
5. Aware of Plan?	
Yes	57%
No	33%
NA	10%
6. How they Heard of the Plan	
Community Leaders/NGO's	18%
Media	13%
Government Representatives	11%
Gossip/Word of Mouth	07%
Meeting	06%
NA	45%
7. Describe the Plan	
Physical Development	26%
Physical and Economic Development	24%
Development/Improvement of the Area	12%
Erroneous Answer	09%
Physical, Economic and Social Development	03%
NA	26%
8. How will the Plans Affect You?	
Positively	35%
Negatively	26%
Will have Effect	07%
No Effect	03%
NA	29%

9. What is Your Response to the Promise of No Relocation?	
Happy/Thankful	72%
Happy but Qualified	17%
None	01%
Not happy	01%
NA	09%
10. Do you want the Government Involved?	
Yes	89%
No	04%
NA	07%
11. If No, Why Not?	
Will create disorder	01%
Not advantageous	01%
Hard on the government	0.5%
Not interested	0.5%
NA	97%
12. What Action would you like the Government to Take?	
Physical and Economic Development	22%
Development/Improvement of the Area	21%
Physical Development of the Area	18%
Take Action/Keep its Promises	18%
Physical, Economic and Social Development	08%
NA	13%
13. How would you rank the following in order of Preference?	
Land Tenure	1
Livelihood	2
Housing	3
Water/Electricity	4
Free Education	5
Health Services	6
Skills Training	7
14. What type of Alternative Livelihood would you Prefer?	
Self-Employment	38%
Factory Employment	34%
Vague/NA	26%
Cooperative	02%
15. Is the Community Involved?	
Yes	60%
No	18%
NA	22%
16. Should the Community be Involved?	
Yes	80%
No	04%
NA	16%
17. If Yes, why?	
To gain Knowledge	26%
Want to be Involved	23%
They are Residents/Have Rights	11%
They will be Affected	07%

To Expedite the Process	03%
NA	30%
18. If No, why?	
Not Necessary	03%
Don't Want to	01%
NA	96%
19. Does Anyone Represent you on the Taskforce?	
Yes	51%
No	28%
NA	21%
20. If Yes, who?	
Katipunan/Father Beltran	30%
Wilson Daleda	07%
Barangay Chairperson	06%
IPC	04%
Other	03%
NA	50%
21. What Contributions can you Make?	
Cooperate/Coordinate	31%
Get involved	31%
Promote Unity	07%
Promote Peace and Order	03%
Other	01%
NA	27%

2.2 ANALYTICAL DETAIL

While all of the significant survey results are summarized in Chapter 5, in this section, the methods of statistical analysis will be explained in further detail.

First, by using the Statistical Program for the Social Sciences (SPSS), several variables were cross-tabulated in order to determine whether they were related. For example, cross-tabulating awareness of the plan (question 5) by gender (question 1) yielded the following result:

Figure 5. Cross-tabulation of Awareness of Plan by Gender

	No Answer	Know	Don't Know	Total
No Answer	1 16.7%	5 83.3%	0 0.0%	6 1.7%
Male	15 9.1%	92 55.8%	58 35.2%	165 47.1%
Female	18 10.1%	104 58.1%	57 31.8%	179 51.1%
Total	34 9.7%	201 57.4%	115 32.9%	350 100.0%

Source: Bubel (1988), Smokey Mountain Community Survey.

Thus it was concluded that while females were slightly more likely to be aware of the plans, gender did not appear to be a determining factor in the awareness of the plans.

Second, in order to analyze the results of the preference question (question 13), the Spearman's rank test was used. For example, if a variable was rated #1, it was given the weight of 8, #2, the weight of 7 and so on. Where there was no response a weight of one was assigned. The point totals for each variable were calculated and the variables were then ranked in terms of their point totals. The final rankings were as follows.

Figure 6. Spearman's Rank for Preference Question #13

Rank Variable	1 (8)	2 (7)	3 (6)	4 (5)	5 (4)	6 (3)	7 (2)	NA (1)	TOTAL
Tenure	146	81	36	21	27	11	7	26	2237
Livelihood	94	43	44	62	54	24	3	26	1947
Housing	40	88	63	31	25	31	45	27	1779
Water/ Electricity	14	41	99	106	30	16	16	28	1751
Education	24	40	49	56	84	37	31	29	1584
Health	5	12	28	30	65	108	72	30	1200
Training	3	18	6	17	35	94	146	31	1016

Source: Bubel (1988), Smokey Mountain Community Survey.

NOTE:

P. 60 is missing
from this thesis