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MARKETING LOW COST SANITATION

Issues Paper

Ronald Parlato
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OBJECTIVES AND SUMMARY

This paper describes a research project designed to study the marketing of improved sanitary latrines in government programs. The latrine - a household product currently sold both on the private market and within public sector programs - is, by the nature of that sale, a consumer item. As a consumer item, its sales volume should be increased and net costs reduced through the standard marketing techniques applied to commercial products:

- (a) improved and/or expanded distribution;
- (b) well-defined pricing strategies;
- (c) product diversification; and
- (d) advertising and promotion.

Historically, government programs have not applied marketing techniques in any systematic way to latrine programs.

The research, therefore, will do the following:

1. Analyze selected government latrine programs from a marketing perspective to determine:

(a) to what degree have latrines been designed according to consumer preference; and to what degree have consumers had a product choice;

(b) what price strategies have been used;

(c) what distribution system, including participation of producers, wholesalers, retailers, and contractors - both in the public and private sectors - has been established; how does it operate and how well;

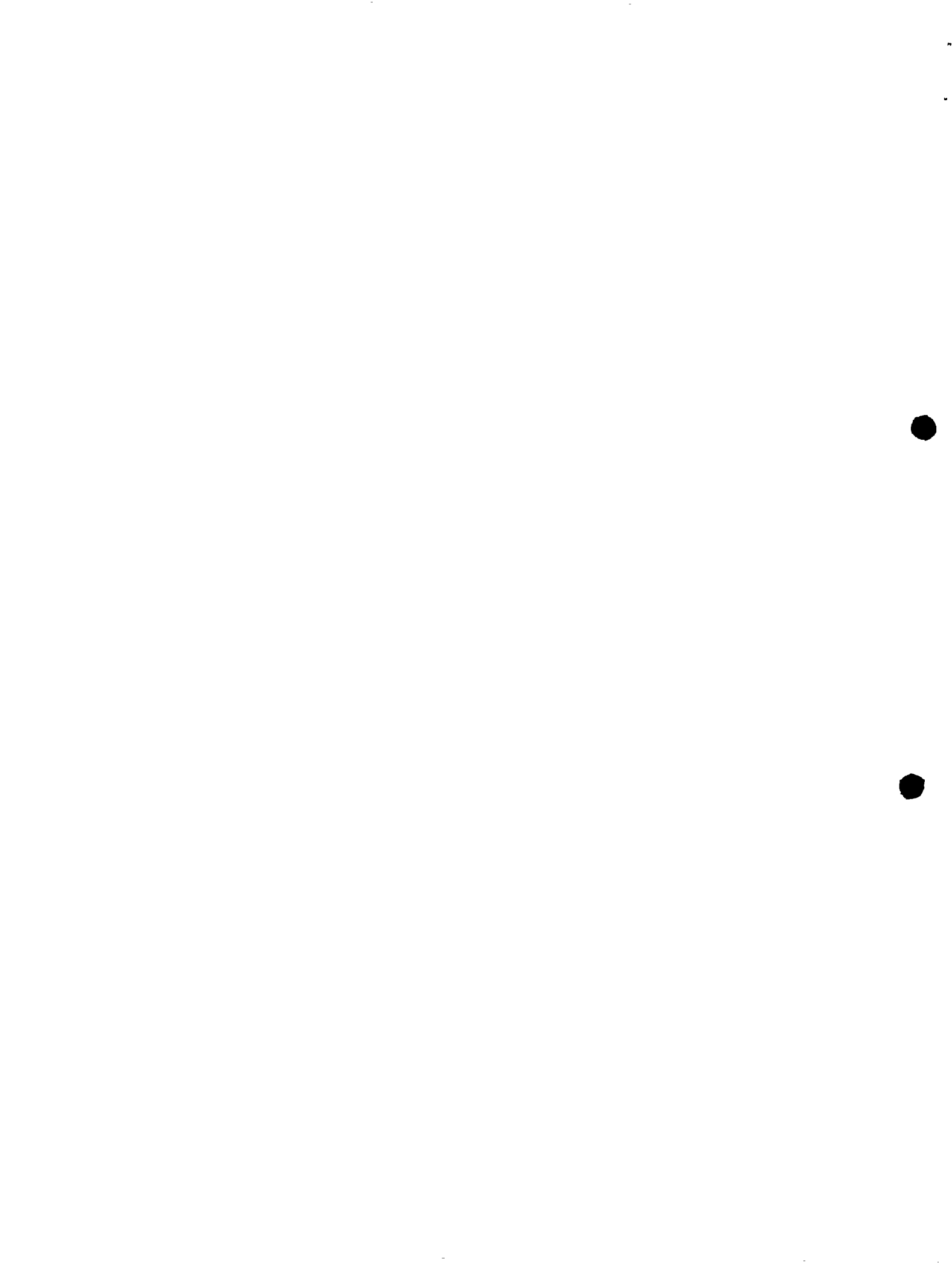
(d) how have latrines been advertised and promoted: how has the public been informed about the product and the program of which it is a part;

2. Recommend, based on this review and analysis, how the marketing of latrines could be improved in the countries studied; what particular marketing elements are most likely to effect an increase in latrine sales.

3. Suggest what levels of investment would be required to assure this improvement:

The first country to be studied will be India, followed by either Brazil, the Phillipines, or Tanzania.

COMMERCIAL MARKETING



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Commercial marketing is defined as that process which increases revenues through: (a) increased sales at a given price; or (b) increased price per unit for a given number of units.

Commercial enterprises have used a variety of instruments to accomplish an increase in sales and unit price, and these instruments are thought applicable to the sale of latrines within public sector programs:

Product

Product-related innovations can lead to increased sales and unit price. Such innovations are:

(a) low cost technology advances, permitting cost savings and higher quality, allowing favorable pricing options (e.g. same quality product at lower cost sold at lower price to increase sales);

(b) product guarantees, reducing consumer risk (and thus product value), hence increasing sales without additional costs of product improvement;

(c) product design options: changing non-essential, non-functional design features such as color, type of materials, and capacity can enhance the perceived value of the product - and hence price paid - without adding substantial per unit costs. These "profits" can be used for cross-subsidy.

(d) product diversification: adding new, lower-cost product lines, sold at lower prices can expand the total market. Adding new product lines for a higher income market can offer similar possibilities for "profits" and cross-subsidies.

Product diversification can, therefore, help to reduce government costs while addressing consumer demand.

Distribution

Distribution refers to:

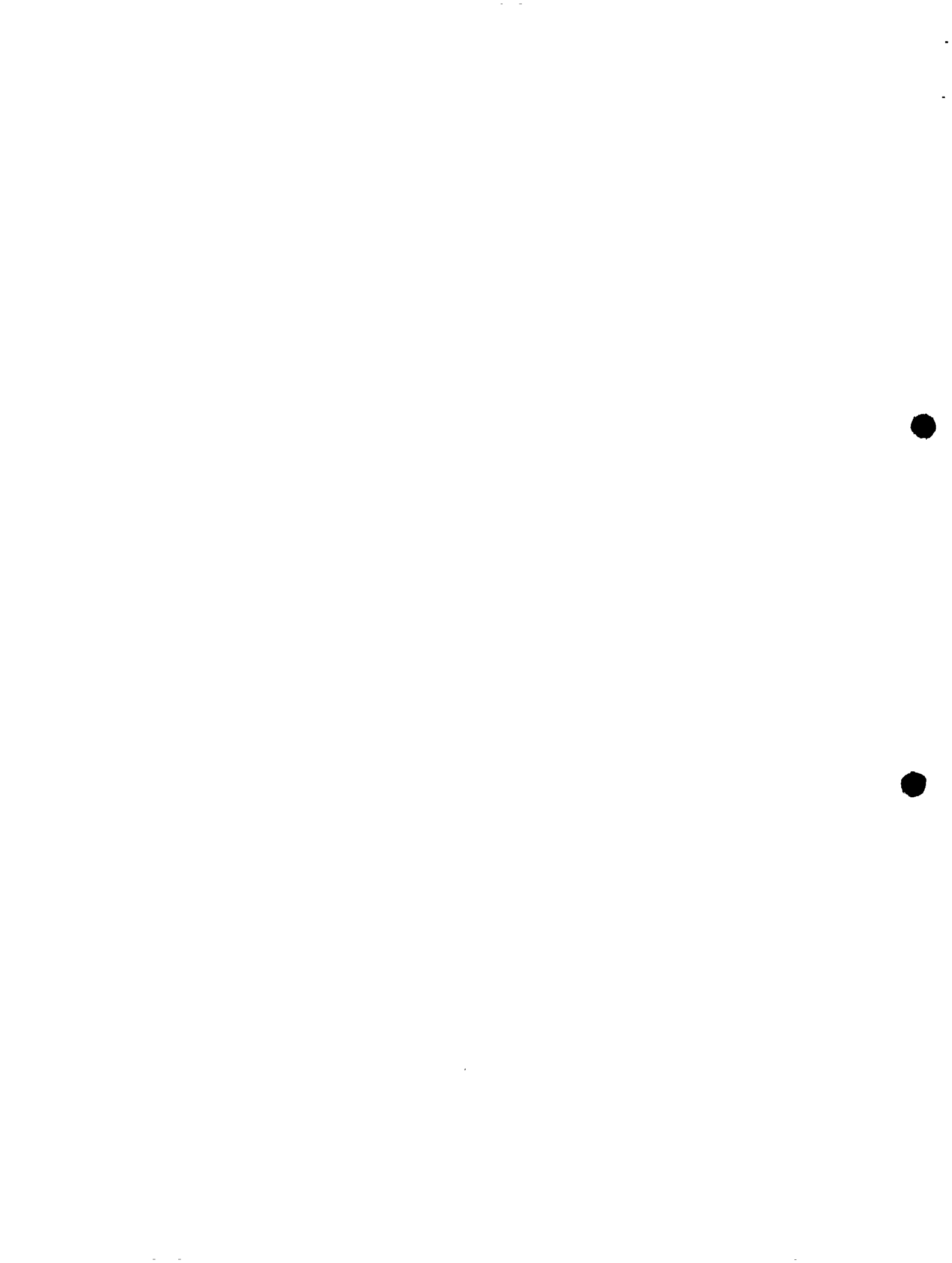
(a) improving product and/or service delivery to a given market, thus enhancing product value. Such enhanced value leads to increased sales at a given price;

(b) expanding sales to heretofore unreached markets.

Advertising

Advertising and sales promotion can:

(a) inform about the existence of a product, its price,



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and where it can be purchased, thus providing information to those consumers who, already convinced of the product's value, need only practical details to execute their decision;

(b) enhance the value of a product through a presentation of its actual, functional values; or through a campaign to add ascribed, non-functional values to it.

Price

As has been suggested above, in a commercial market price is a function of quantity demanded, and this demand can be enhanced through product modifications, improved distribution, or advertising.

In addition, price can be manipulated in the following ways:

- * lowering price temporarily to create, expand, or solidify market share;

- * lowering product take-home price through credit.

A constant factor in the above discussion of market interventions is cost: the more costs are reduced for each intervention, the greater the profit realized. Costs have traditionally been reduced in the following ways:

1. Improved technology in product design, means of production, and distribution.

2. Improved management (efficiencies in production, distribution, and advertising).

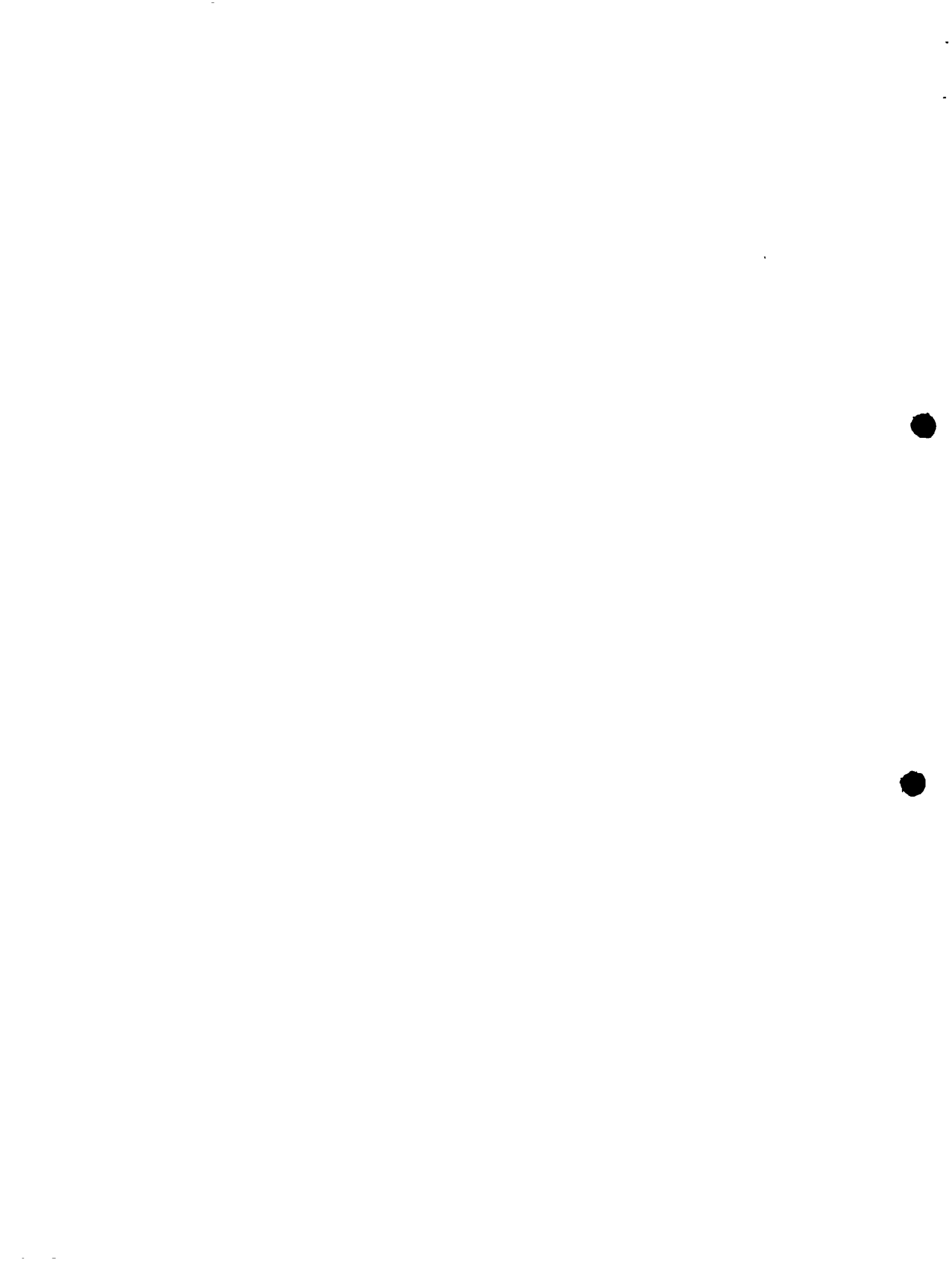
3. Lower material or labor costs.

MARKETING IN A PUBLIC SECTOR CONTEXT

Public sector marketing has different objectives from those of the private sector. Whereas the latter is concerned primarily with increased profit, generated either through increased sales or higher prices per sale (while maintaining or reducing costs), the former has been primarily concerned with increased sales - the extension of latrine coverage.

In the absence of profits, latrine programs have been measured by the degree to which and the rate at which they reach coverage levels necessary to reduce disease and improve land values.

This difference is important, and it governs the way the entire public program is conceived and run; and will determine the levels of investment required for improved marketing.



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Because of assumed long-term economic and social benefits that are assumed to outweigh program costs, cost considerations are often minimized and costs are often incompletely calculated, leading to eventual cost overruns and retarded performance. Such incomplete calculation of cost also distorts any cost-benefit analysis conducted.

Prices, for the same reasons, are often set low, in an attempt to spur sales and guarantee equity.

In the lack of a strict profit-and-loss discipline, public sector managers, must do the following to maximize marketing interventions:

(a) set long-range targets - in the case of latrines, the minimum percentage of community coverage likely to result in health improvements; and the number of years to achieve this target, at currently-estimated costs, rates of population growth, and availability of finance;

(b) set short-term targets - yearly and quarterly - for performance towards meeting these goals;

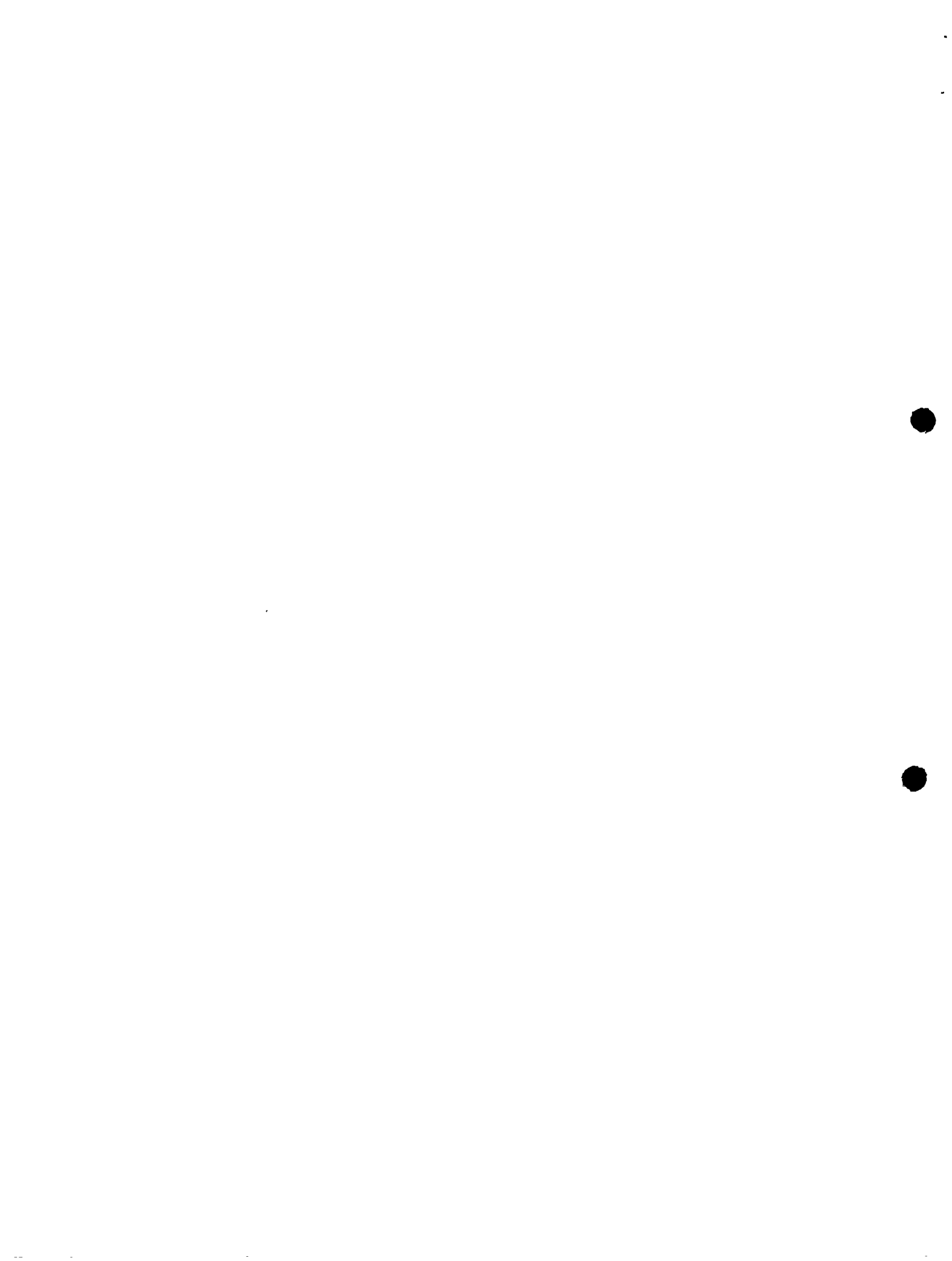
(c) set up a monitoring system which will indicate which program elements (or marketing instruments) are causing poor performance;

(d) ensure a flexible budget - one which permits the manipulation of marketing instruments to determine how performance can be enhanced and at what cost;

(e) understand how marketing works within a public sector context (1), and select those interventions most likely to succeed;

The question of which of the four marketing instruments discussed above should have the highest priority is the primary question to be investigated in this research and will be discussed in more detail below. In a commercial economy, all instruments are considered equally important, and the absence or poor quality of any one would seriously jeopardize sales. Companies, however, try constantly to stretch each instrument to its profitable limit - to spend as little as possible on product, distribution, and advertising while raising prices as high as the market will bear. The choice of which instrument to minimize or to favor is a highly complex one and varies greatly by product, by market, and

1. Commercial marketing techniques have been applied to public fertilizer and contraceptive distribution programs. Key elements in both were distribution (economic incentives to retailers), and advertising and promotion.



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historical period. Few clear lessons from the private sector, therefore, exist for application to latrine sales. Investments, therefore, are likely to be made according to more practical considerations: improving municipal distribution systems - a weak link in many government programs - may not raise costs significantly and have a major impact on sales. Similarly, there is ample room for price manipulation in most programs, although existing subsidy levels may have distorted prices to such a degree that neither price manipulation nor new product entries may be possible.

The adoption of commercial-style advertising, unfamiliar to most public works departments and requiring expertise from outside the sector, may be unlikely, but simple, public informational programs supporting private contractor initiative, as in the India program, quite possible.

Product diversification may be impossible in countries like India where national decisions have already been taken on technology choice, but ideal in countries embarking on new programs.

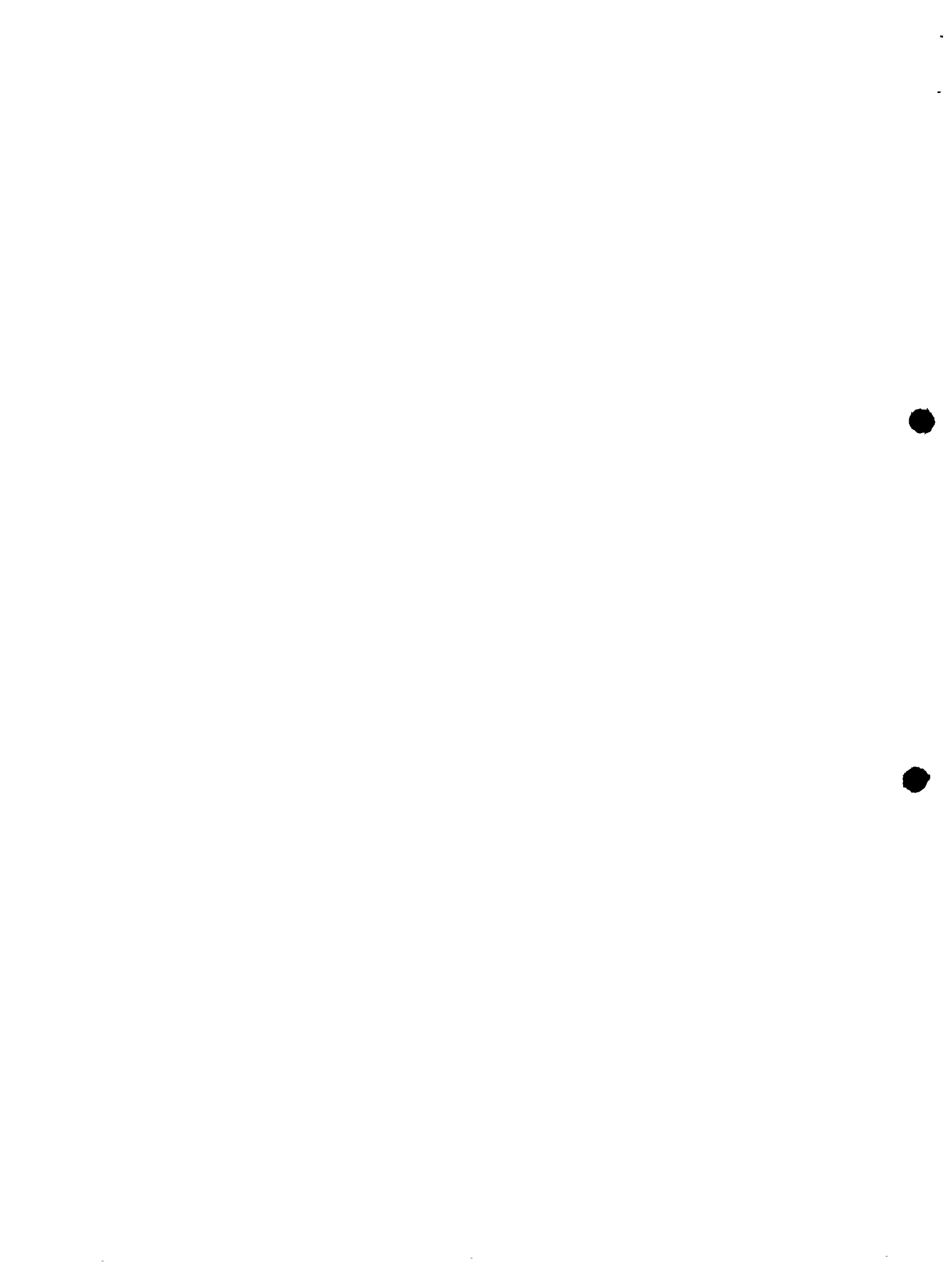
The following section of this paper will describe the experience of the India urban low-cost sanitation program from a marketing perspective. It will explore how marketing principles were applied within a large public sector program, what were the constraints to modifying or improving currently-adopted marketing strategy, and what could now likely be done within these constraints to enhance program performance.

MARKETING LATRINES IN THE PUBLIC SECTOR: A REVIEW OF THE INDIAN EXPERIENCE

The India urban low-cost sanitation program, because of its size and complexity, offers an opportunity for market analysis - a scrutiny of product, price, distribution, and promotion and suggestions how adjustments in these instruments could, in theory, improve program performance.

The following review of the India program is based on A Monitoring and Evaluation Manual for Low Cost Sanitation Programs in India (2) and on subsequent supervision missions by the UNDP/World Bank Decade staff in Washington and in India. The observations made do not necessarily apply to all states or to all municipalities. They do apply in many instances, and it is the objective of the research proposed in this paper to investigate

2. Ronald Parlato, Technology Advisory Group (TAG), UNDP/World Bank Interregional Project, 1984



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the observations made in depth, and to provide practical, useful guidelines for program improvement.

1. Distribution, or Product Delivery: Although in the India program latrine prices are subsidized, hidden costs caused by certain inefficiencies - long waiting time for credit; poor performance by contractors dissatisfied with fees or contractual arrangements; lack of municipal supervision and administration in site planning, technical assistance, and loan/grant administration; uncertainty about pit-emptying charges and supposed compost revenues (compost from decomposed waste in pits) - have raised the real cost of latrines. It is hypothesized that these levels are currently unacceptable to lower income segments of the target population, and that coverage growth among these segments has been slow.

These problems were largely derived from an early program decision to entrust program implementation to municipalities - financially strapped and often insufficiently staffed entities which had little autonomy and little ability to effect change. As a result, Indian Government planners, in collaboration with the World Bank, preparing new sanitation credits, changed implementing agencies, suggesting that in certain cases State Water and Sewerage Authorities were more appropriate institutions for execution than municipalities. These authorities, it was argued, would be independent from local political pressures and could exert the stringent quality control over both product and contractor service. In one state - Gujarat - the unusual step of looking to PVOs - private voluntary agencies - was taken in order to carry out at least part of the execution of the program, in the hope that such organizations would be more advocates of consumer interests. The results of these changes are not yet known. However these actions are indicative of the institutional change often required to effect marketing reform. A comparison between two states with active low cost sanitation programs but with different implementation strategies - Kerala and Tamil Nadu - would provide interesting insights into the role of distribution as a marketing tool.

2. Product: Only one product was available in India - the fibreglass, twin-pit, pour-flush latrine. Because of the high cost of the product (equal to approximately 25 percent of a low-income family's income), the latrine was subsidized and in principle made affordable to the entire population. No market research was done on the acceptability of other technology options. The simplified, improved pit latrine (non-water seal, non-ventilated) is a safe and inexpensive means to provide human waste disposal. Although one can only speculate on actual demand for the product, in principle, it can provide low-income families with household sanitation, while costing the government far less than at present. Once the generalized distribution of the fibreglass latrine at subsidized prices was assured, however, the



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sale of a lower-cost model became impossible.

The Low-Volume Flush Toilet (LVFT) that works on the same twin-pit system as the Pour-Flush, but provides cistern flushing with a toilet rather than a squatting pan, has been shown in limited trials to be an attractive option for middle-income households, for whom the pour-flush latrine represented a "low-class" solution and for whom the cistern-flush toilet system represented modernity. The sale of such LVFTs can, therefore, command a higher-than-cost price, thus permitting cross-subsidy, while contributing to the health-related goal of 75-100 percent community sanitation coverage.

The production of lower-cost latrines was and is certainly a possibility in India because of their use of local materials and their simple design, permitting local, even community manufacture. Under the current situation in India, however, where subsidies have permitted the offering of a high-cost product at low prices to low-income consumers, the introduction of a low cost simplified latrine is unlikely.

Simple modifications in design or materials such as the addition of color, or the offering of a variety of material choices for pans (e.g. ceramic, mosaic in place of fibreglass) and superstructures (latrine cabins), can also add product value. Little was done in this regard in the India program.

Product and service warranties were not provided in the India program. Such warranties are cost-effective ways to improve performance because they require no initial investment and involve little actual expenditure if the product and/or service are of high quality (3). In India few if any complaints were heard about the fibreglass pan and trap. Simple in design, made from standardized molds from quality material, and recipient of the Indian Standards Institute seal of approval, these units could easily have been guaranteed. Guarantees for service would have been far more problematic, since, as discussed above, contractual relationships with contractors were not yet optimum. Product and service guarantees are more important the closer product price is to market price.

3. Promotion: Product promotion through public sector informational campaigns was given less importance in the Indian sanitation programs than other marketing elements such as price

3. Guarantees are more often associated with quality products and brand names than with cheaper goods. Major automotive, audio equipment, and tire manufacturers, among many others, have all guaranteed their products to offer security to interested but hesitant consumers. Because of the quality of the product, the liability to these manufacturers is small.



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and distribution.

There were three reasons for this relative lack of attention. First, planners assumed that with subsidized prices, little active promotion was required, since price alone is a major determinant of sales. Although sales price is certainly such a major determinant, it is, however, confounded by hidden costs, referred to above in the discussion of Product Delivery. Hidden costs (waiting time, insufficient municipal supervision and administration, contractor difficulties, etc.) raised the price above acceptable levels, thus making the latrine too costly, despite its low sales price.

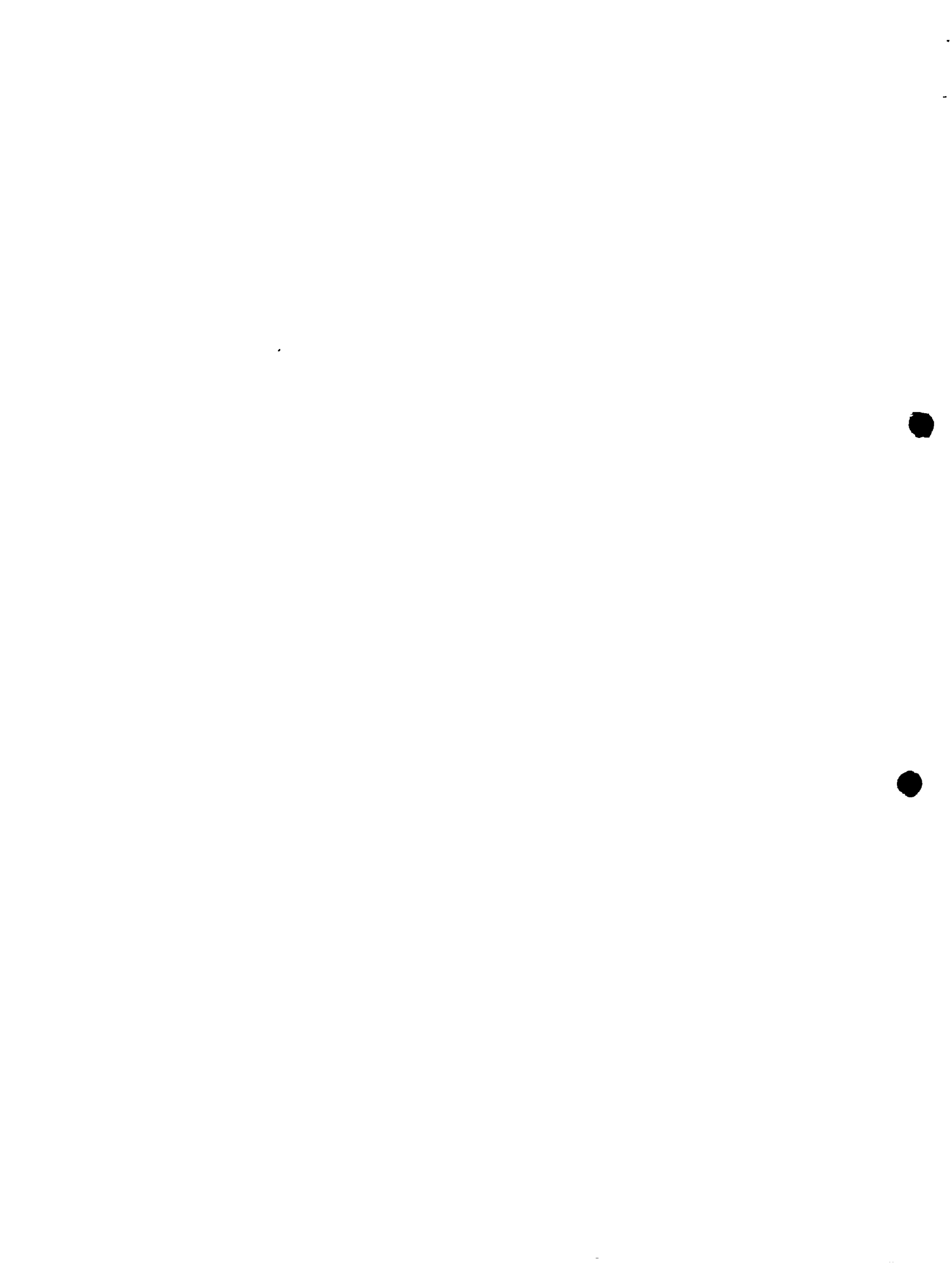
The second reason for lack of aggressive public promotional efforts was the assumption that contractor profits would motivate them to promote the latrine. While in principle a reasonable assumption, in fact, because contractor profits were cut into by hidden costs (e.g., few economies of scale in small-lot jobs), not only did contractors not promote new latrines, but did not complete latrine construction jobs already started.

The third and final reason for lack of attention paid to advertising and publicity was an unfamiliarity with the discipline. Planners of government public works programs - those such as water supply that provided services at subsidized prices in a non-competitive market where demand exceeded supply - never felt the need for advertising to stimulate demand. Commercial advertising, despite its successes in retail sales and other non-commercial endeavors (fertilizers and contraceptives to name but two) was considered an inappropriate - and costly - intervention.

4. Price

As has been mentioned above, although price is, in principle, an important marketing instrument, its effectiveness was neutralized through hidden costs. If the product delivery were made more efficient, then the pour-flush latrine, at current sales prices, would, presumably, be an attractive product for low-income consumers. On the other hand the latrine, offered at subsidized prices (100 percent loan) for middle-income families, may be underpriced - they may be able and willing to pay more for the product. Conversely, the latrine may be unattractive at any price for higher-income consumers, necessitating product diversification.

Under the current situation in India, with a firmly established policy of government financial support to assure equity, there is little likelihood of price manipulation, unless new products are introduced into the market. For countries embarking on a latrine program, however, price can be determined through market trials, as is done in the commercial market. A new product can be sold, delivered, and promoted at a given price



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(or at different prices in different areas) to determine just what price the market will bear. Subsidy levels can then be determined based on this market price.

In the area of price manipulation - consumer credit - the India program succeeded to a large degree. Consumer credit is an important means of reducing the take-home price of the product. Although its means test (determination of eligibility for credit on the basis of income or income surrogates such as utility connections) can be criticized in terms of reliability of determining need (linking credit/subsidy levels to levels of household facilities) and should be scrutinized further, the India program did offer a progressive grant/loan package. The program, however, had difficulty in recovering costs. First, cost-recovery from individual households for public services has been problematic in many instances. Expectations for repayment are low - both on the part of lender and beneficiary.

Secondly, municipal administration, often without sufficient funds and personnel, has been unable to cope with the labor-intensive work of credit management. Few states have experimented with private sector credit management and cost recovery.

LIKELY MARKETING STRATEGIES

Based on the commercial marketing strategies presented in this paper and on a review of the India program, following are the marketing interventions thought most likely to succeed in government programs characterized by public sector execution, high levels of subsidy, and private sector involvement through contract.

1. Improving contractual relationships with contractors. Not only the experience of the India latrine program, but that of contraceptive social marketing, fertilizer promotion programs, and other public sector, product-based marketing efforts has shown that the retail link in the marketing chain is a key one. If retailers are assured a reasonable profit, they have been shown to be effective, if not aggressive sales agents. Whereas assuring reasonable profit margins does not assure quality, it can assure an incentive to increasing coverage. Quality control can be assured either through stringent public supervision or through private competition.

2. Product diversification: The production of a range of products, each available at an affordable price for each segment of the market, offers the consumer the opportunity to purchase something that corresponds to his preferences and has a value commensurate with the price paid for it; and gives the producer the opportunity to recover costs. A product for which close-to-market price has been paid will be a product valued and for which



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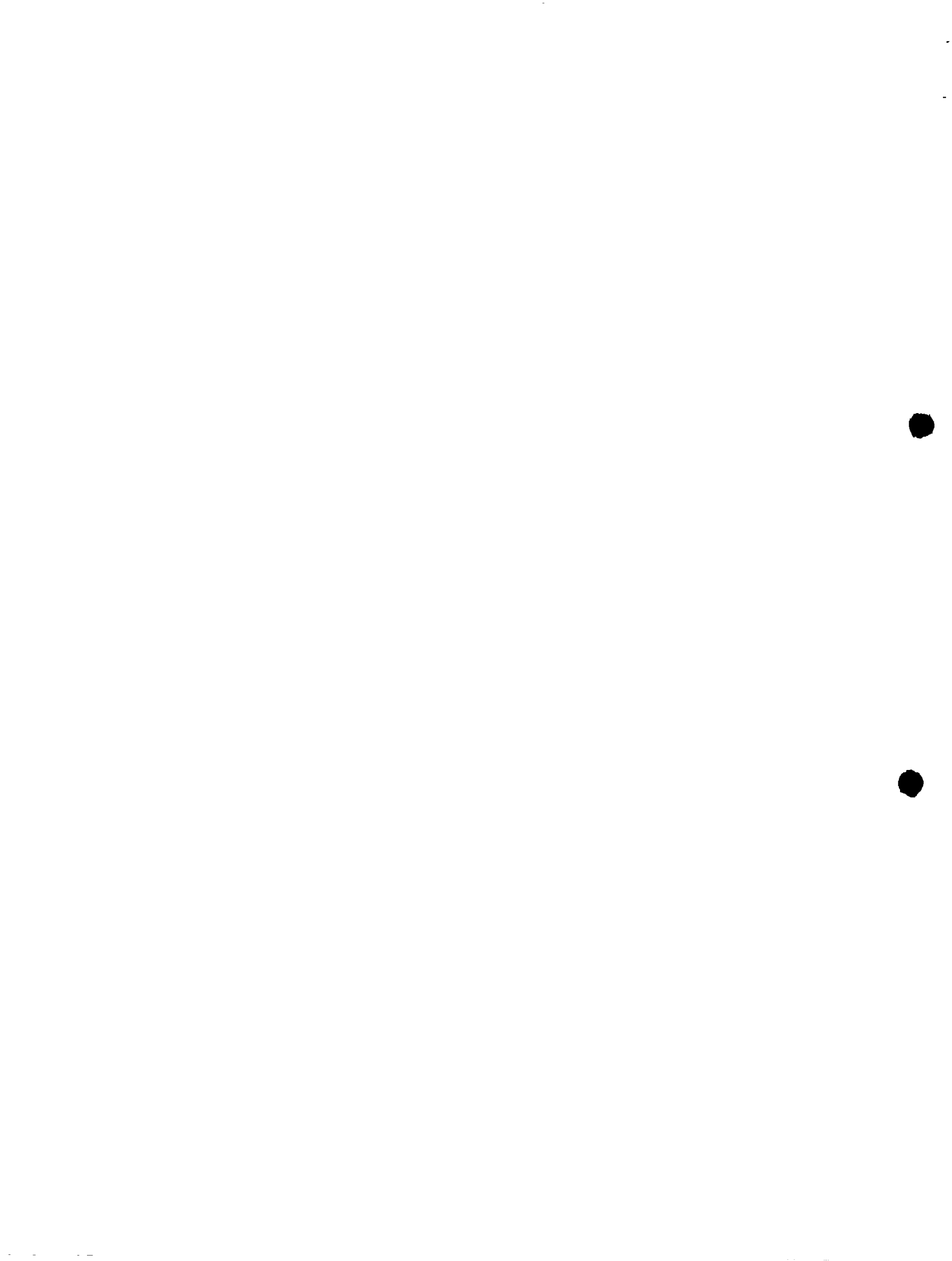
consumer demand for quality parts, labor, and service will be increased. The closer a product comes to a consumer's ideal, the higher a price can be charged for it.

Product diversification, therefore, is considered an important element of latrine marketing. If highly subsidized products - such as the fibreglass pour-flush latrine in India - have flooded the market, the introduction of less-expensive variations for which full or near-full cost recovery is asked is difficult, if not impossible. If a program has not set such precedents, however, diversification is ideal.

3. Product/service warranties: If #1 and #0 are implemented, then product/service warranties become all the more important. That is, if contractual relationships between state agency and contractor can be established to assure performance; and competition or quality controls instituted to protect quality; and if products sold are valued highly by consumers (where price accurately reflects perceived value), then warranties are in order, and present limited risks and costs to the state.

4. Improved state management: even if much of the actual work of production and distribution is done by private contractors, state agencies (municipality, water authority, department of public works, etc.) will still have the responsibilities for: overall program financing, loan/grant administration, initial site supervision, quality control, warranty management, etc. Inadequate state management will affect all other interventions. The credibility of the sponsoring agency - the producer of the product - is key. The move to state water and sewerage authorities has been a positive one in that it moved the production and installation of latrines out of the hands of municipalities ill-equipped to handle them. It has not, however, solved the question of overall program management since municipalities in those states with water authority implementation are still responsible for credit management and promotion. It is unclear whether state water authorities can extend their services, perhaps through increased use of the private sector, to credit management and cost recovery, quality control and warranties, and promotion and publicity.

5. Advertising and product promotion: Advertising and product promotion have been particularly successful in commercial marketing and social marketing efforts and represent a significant potential for latrine sales. Advertising can best succeed, however, when the other elements of the marketing mix - product, price, and distribution - reflect consumer needs, means, and preferences. Even the best, most persuasive advertising, in itself adding to the perceived value of the product promoted, will have little effect on sales if the product is poorly designed, the price too high, or its availability limited.



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Advertising campaigns developed after due consideration has been given to product, price, and distribution (discussed in Items #1-4, above) can build on these elements, informing consumers about attractive price, product features, or service contracts while still talking about modernity, convenience, attractiveness, and other more abstract qualities which have become the hallmark of commercial advertising. Although the private contractor/profit motive model may still be a good one, additional public information campaigns may help to provide program information that individual contractors may not have the education or background to provide. Both the fertilizer and contraceptive programs of India give ample weight to the argument that the public sector can play an important role in supporting private sector activities.

PRIORITY INTERVENTIONS AND LEVELS OF EFFORT

Some of the interventions described above require institutional adjustments - difficult to accomplish in many instances because of proprietary political interests, established bureaucratic procedures, and tradition, but not costly, and perhaps more cost-effective, when finally implemented.

Others, such as the re-negotiation of contractors' agreements do require additional financial resources.

Still others, such as the introduction of product warranties, are contingent on other interventions, and also cost very little once implemented.

Since many programs will have already flooded the market with one technology option (the VIP or Pour-Flush latrine), product diversification at the low end of the scale is unlikely while diversification at the high end may be too costly.

Advertising - either simple, descriptive messages about the latrine, its cost and its features, and the availability of credit, service contracts, and warranties; or more elaborate persuasive and motivational campaigns - can quickly inform the public and generate community-wide interest in the product.

Investment decisions, therefore, should probably be taken in that order:

1. Make any institutional realignments necessary to improve consumer service.

2. Reassess state-private contractor relationships and make fee-related or other changes in contractual relationships that enhance those relationships and improve performance, while limiting costs.



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3. Assess the impact of a diversified product line on overall latrine sales, beginning with low-income market segments. If such diversification is carried out, price products competitively, with product cost close to market value.

4. Institute product/service warranties.

5. Develop an advertising and promotional campaign - at a minimum, a dissemination of information about the product, its availability, and its price. Such a campaign can be developed with little technical assistance since it relies only on simple, declaratory information. Where budget permits, a more fully developed motivational campaign, actively promoting the product should be considered.

Determination of levels of investment for different interventions is difficult. Although a model exists for such a determination - measuring program performance (e.g. unit increase in sales/coverage) against cost (e.g. unit invested per intervention), its predictability is limited by lack of information from other programs and necessarily qualitative aspects of proposed interventions.

If a latrine program, for example, is currently investing \$0.10 per capita on advertising and sales are flat, should one, as the first step of empirically studying the relationship between investment and sales, double the investment? Triple it? Add only 10 percent? Even if one ~~could review the experience of~~ ^{... or could review the experience of} this type), subjective judgements are necessary to compare the quality of work done for the \$0.10 per capita. High quality advertising done for \$0.10 per capita should have a far greater impact on sales than poor quality. In addition, since advertising is made up of many different components, it is difficult to determine which of them has contributed most to flat sales. In the case of advertising, campaign duration is another important variable. Although sales might remain flat for a month after an additional investment, they might increase thereafter. If cost-effectiveness measurements after a month, they might produce misleading results.

Such cost-effectiveness measurement is also difficult because of the large amount of information required. Ideally, small increments in investment for each intervention should be monitored. Currently, it is difficult to obtain even gross data on investment and performance.

RESEARCH NEEDED



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Field research is needed to test the hypothesis that the application of commercial marketing techniques can improve public sector latrine program performance and to indicate which of the possible marketing interventions is the most likely and cost-effective way to increase sales.

The following methodology will be followed:

1. Review existing public sector latrine programs to determine:

(a) the degree to which the planning of these programs adopted marketing principles;

(b) how well were these marketing principles applied: was there consumer-based product design and development; a pricing strategy which considered this design and consumers' valuation of it, ability to pay, costs, and government financial needs; a distribution system which facilitated consumer purchase and unit installation while being cost-effective; an advertising campaign which was based on the information collected on consumer behavior and preferences?

2. Determine why current marketing strategies were adopted and applied, and why others were not. What political, institutional, economic, or other factors dictated these choices?

3. Determine, in the case of each marketing element, how, within existing financial and institutional constraints, current program activities could be modified to increase sales.

Data is required for all the marketing categories elaborated above. Following are the major items to be investigated at country level:

Current program performance

-- What are the long-term targets for the current country latrine program and on what basis were they established? What is considered "total" coverage to achieve health/environmental improvements? How many years are estimated to be needed to reach these goals? On what basis was this number of years determined (i.e., assessment of institutional, financial capacity)? How many latrines must be built each year to achieve these targets?

-- Have short-term operational targets been established? That is, regardless of long-term targets and estimates of performance which may have been arbitrarily set, how have yearly targets been established?

-- What has been the performance of the program relative to operational targets? Has the program - or any part of it - met



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objectives? Does the performance of the program show progress - that is increasing rates of coverage? Has performance deteriorated?

-- What are the costs of the program, by marketing component category (product, distribution, advertising, credit)?

-- How is performance affected by levels of investment? Is there any quantified evidence that increase in investment in any one marketing category has an impact on performance? Do some state or municipal programs within a country sell more latrines for the same level of investment than others; and if, so, what were the determining factors for this difference?

Major marketing elements

(a) product delivery: what role does the public sector play in product delivery? Does it operate all activities of the program, including latrine construction, credit management, promotion, etc., or does it contract out certain activities? Which public institutions are responsible for: latrine production, installation, credit management, quality control and supervision, promotion, monitoring and overall management, finance? What are the inter-relationships between and among various governmental institutions that affect product delivery?

What role has the private sector had in this institutional organization? Do private parties participate as contractors to public agencies only, or do they have more autonomy, such as in the concession system of water supply management? As contractors, do they participate in latrine production, distribution, promotion, credit management, cost recovery, or other program activities?

What role do PVOs have in this institutional organization? What tasks have they been assigned in the production, distribution, promotion, consumer service system?

What contractual arrangements have been made between the state and private contractors or between the state and PVOs?

To what degree has the product delivery system worked in the country? That is, what are the specific problems or bottlenecks that have occurred in terms of: institutional organization, management, or finance? Has the system of public-private collaboration been satisfactory in terms of meeting program goals and objectives and satisfying consumer demand?

What realistic changes in the product delivery system would likely improve program performance?

(b) product production and diversification: What types of sanitary latrines are sold within public sector programs? If



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only one, why was no diversification contemplated? What consumer research was done to assure the acceptability of the product or products sold within the program?

What kind of product diversification could be contemplated? Do facilities exist for the production of both downscale and upscale technology options? What government controls or other potential obstacles exist to the addition of new product lines to the standard latrine sold?

(c) product warranties: what kind of quality control presently exists for latrine production and/or installation? Are product/service warranties feasible given the existing state of quality control in the country?

(d) price: what is the amount charged to consumers for a latrine? On what basis was this price determined? Was consumer research done to estimate willingness to pay? Were market trials carried out to determine price? What are subsidy levels... what basis were they established?

What exogenous factors may add to the price of the latrine? That is, what delivery inefficiencies such as waiting time for credit, uncertainty about contractor performance, questions about quality control, lack of product guarantees, etc., effectively add to the stated price of the product? To what degree is this adjusted price equivalent to or exceeding market price?

Are there credit schemes operating? For whom, and on what criteria is credit given? How are these credit schemes administered? What are current loan recovery rates, and if they are low, what are the contributing factors to poor performance?

(e) promotion: what kind of promotional or informational activities have been carried out within the program?

Private market activity

Is there an independent private market for low cost sanitation in the country? That is are latrines sold privately?

If so, what products are they? What is their price? To whom are they sold? Do they cater only to the upper or middle class market, or are lower income consumers also served? Which marketing instruments are used to encourage sales?

What other relevant information concerning volume of business, type of business, size of business, levels of competition, etc. can be provided concerning private sector activity?

Criteria for site selection



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The major criterion for country site selection is the existence of a large-scale urban public low-cost sanitation latrine program which has been in operation for at least 3 years - long enough to enable the collection of data concerning performance.

The program should be large in scope, covering a variety of different geographic areas or socio-economic groups of the country (or city) permitting comparisons, where possible; and ideally should have implemented, at least to some degree, marketing-related components of pricing, credit, advertising, retail sales

India is considered the most appropriate country for investigation. Since the time of the initial review of the India program (1983), two states with substantial World Bank funding have either begun a new program (Kerala) or remodeled an existing one (Tamil Nadu) based on lessons learned in the 1979-83 period. Because of Bank financing, they have the resources to mount large-scale programs and, according to recent reports, have done so. Surveying state programs such as these should offer the opportunity to collect comprehensive marketing information.

The India program is known well to INUWU staff. A new India Decade program has recently begun and a Regional Resource Unit staff put in place.

Execution of Research

The research would be executed by an Indian Consultant from a reputable private or public institution or consulting firm. Detailed terms of reference and workplan for the field investigation are attached as Annex I of this paper.

Follow-up countries

There are three additional countries which appear likely for useful investigation - the Phillipines, Brazil, and Tanzania. These programs to a large degree are large in scope, cover a variety of different geographic areas and socio-economic groups, and have incorporated marketing elements - efforts to establish a rational pricing system, consumer-based product design, an active private retail sector, and creative advertising - in their operations.

If results from the India investigations prove useful and promising - that is if they show that marketing does, in fact, increase sales and that improved marketing can improve government programs - additional investigations will be carried out in at least one other country. The purpose of these investigations will be to corroborate the India data and to provide specific recommendations for each new country studied.



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RParlato
2/14/89

Annex I

Marketing Low Cost Sanitation

Methodology for Field Research

Details: India

INTRODUCTION

This note is a further elaboration of principles set forth in Marketing Low Cost Sanitation, World Bank Consultant, February 14, 1989.

As suggested in that paper, the country offering the greatest potential for information on the subject of Marketing Low Cost Sanitation is India.

The states of Kerala and Tamil Nadu will be the subjects of investigation. These states have well-financed programs, active for at least the past three years, with reputations of good management and implementation. As will be seen in more detail below, they have adopted different implementation and marketing strategies and thus offer the opportunity for clear comparison.

MARKETING: HYPOTHESES AND OVERALL METHODOLOGY

The purpose of this investigation is to determine: (a) to what degree marketing affects latrine sales; and (b) which marketing elements (i.e., product design, price, distribution, advertising and publicity) most affect sales.

In principle this question will be answered by comparing the performance of two states - Kerala and Tamil Nadu - each with quite different marketing approaches. Firstly, both states differ, as has been seen above, in their pricing structure. Secondly, they also differ in the way they distribute the product. In Tamil Nadu the State Water Authority - TWAD - is the implementing agency for the program, constructing all household units; while in Kerala the municipalities are responsible for this activity. Finally, each state differs substantially in the way it advertises or promotes the product. In Kerala, where private contractors are engaged to do latrine construction work and are paid for profit, they - in principle - are motivated to publicize the



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program and the product. In theory the more they promote, the higher the demand for latrines and the more work they perform. In Tamil Nadu, since it is a state agency which undertakes the household construction work, a promotional element must be specially designed to ensure growth in demand.

Although product design is an important marketing element, because most of India uses a standard fibreglass twin-pit, pour-flush latrine with few if any variations, it cannot be considered when comparing state performances. An analysis of state decision-making concerning the choice not to include other product designs, hence eliminating a potential marketing incentive, will be discussed later.

By comparing the two states' performance, one can measure the impact of individual marketing elements:

-- if price is a major determining factor in sales, sales to low income families in Tamil Nadu should be significantly higher than sales to low income families in Kerala since a 100 percent grant is given to them. Similarly, sales to higher income families should be higher in Kerala where the pricing system is more favorable to them (controlling cost differentials and purchasing power - i.e. Rs. 1500 per month in Kerala might be the equivalent of Rs. 2000 in Tamil Nadu. The same latrine might cost Rs. 1600 in Kerala and Rs.2000 in Tamil Nadu).

-- if the above phenomenon are not observed, then distribution and advertising play equal, if not more important roles. If sales among middle-income families in Kerala, receiving the same 50-50 loan-grant mix as their counterparts in Tamil Nadu, were higher than for middle income families in Tamil Nadu, one could conclude that the contractor/profit motive model was more successful than the public institution/information model. Similarly, if sales among low income families in Kerala were higher than those in Tamil Nadu, one could also conclude that distribution/advertising were more important than price. Finally, if sales among higher income families in Tamil Nadu were higher than those in Kerala, the conclusion would be the same.

Additional information concerning marketing elements can be obtained by analyzing intra-state performance:

-- with costs constant (i.e., no additional investments per year made in the program other than to adjust for inflation), it is likely that there will be significant increases in latrine sales among low-income areas of Tamil Nadu (with favorable pricing structure, 100 percent grant) if distribution/advertising activities are have been carried out successfully - that is, prompt processing of credit application, equally prompt installation of latrine, quality work, and product and labor guarantees. Increases should be less marked in middle- and



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higher-income areas with successful distribution/advertising elements, where pricing is less favorable. If price is less of a determining factor than distribution/advertising, then sales increases should be similar in low- middle- and high-income areas.

DETAILED METHODOLOGY

To successfully compare the two states and make the above type of conclusions, the following information will be necessary:

Quantitative data

1. Number of latrines constructed, by year, by high- middle- and low-income consumers for all Project Towns in both states (10 in Kerala; 15 in Tamil Nadu). If data are not available at state level, information will be gathered from a minimum of one-third of the project towns. It is assumed that data on total number of latrines constructed by year are available at state level, since budget allocations are based on latrine unit costs and previous year's latrine construction figures.

Since price charged to all customers is based on an income categorization, data concerning income status of each latrine customer should be available at municipal level. If it is not readily available (i.e., never has been compiled), an estimate can be made by classifying wards by income (done with municipal officials), and calculating the number of customers per ward-category. If both these sources of information prove impossible, towns classified as "high-", "middle-", or "low-income" can be compared.

2. Total cost (expenditures) of program, by year, by town for all Project Towns. Cost must be controlled in order to reliably compare marketing interventions between states and latrine sales growth between years in a given state. Total cost should include the same elements for both states. The elements of this cost are: centrally-produced components, such as pans, traps, and pit covers; local materials (bricks, stones, mortar, etc.) and labor; transportation costs of centrally-produced materials to towns; engineering costs for both towns (est. 8 percent) and state government (est. 7 percent). In order to compare costs between states, a cost-of-living factor must be applied. A cost-of-living factor should also be applied when comparing state costs.

For expenditures, all data on actual money spent in a calendar or fiscal year by should be recorded by project town. This amount should be the difference between total allocations to the municipalities minus funds returned or applied to the next calendar or fiscal year. Since assessing material inventories (pans, traps, etc.) will be difficult, total expenditures on latrine



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production per year should be taken as total yearly costs.

2. Proportion of total cost spent on: product, distribution, and advertising and promotion by Project Town for each of the towns visited (3-6 per state).

3. Budget allocations by state, per town. To a large extent, the degree to which programs can grow are determined by budget allocations, and these allocations in turn are based on an estimated cost of each latrine unit and an estimated number of latrines likely to be built in a given year. State governments, based on World Bank/UNDP technical guidelines, have determined the cost of a 5-, 10-, and 15-user pour-flush latrines for a base year for different regions of the state, and have adjusted it for inflation for each successive year. It then, on the basis of certain criteria, estimated the total number of latrines authorized to be built in each of the project towns by year.

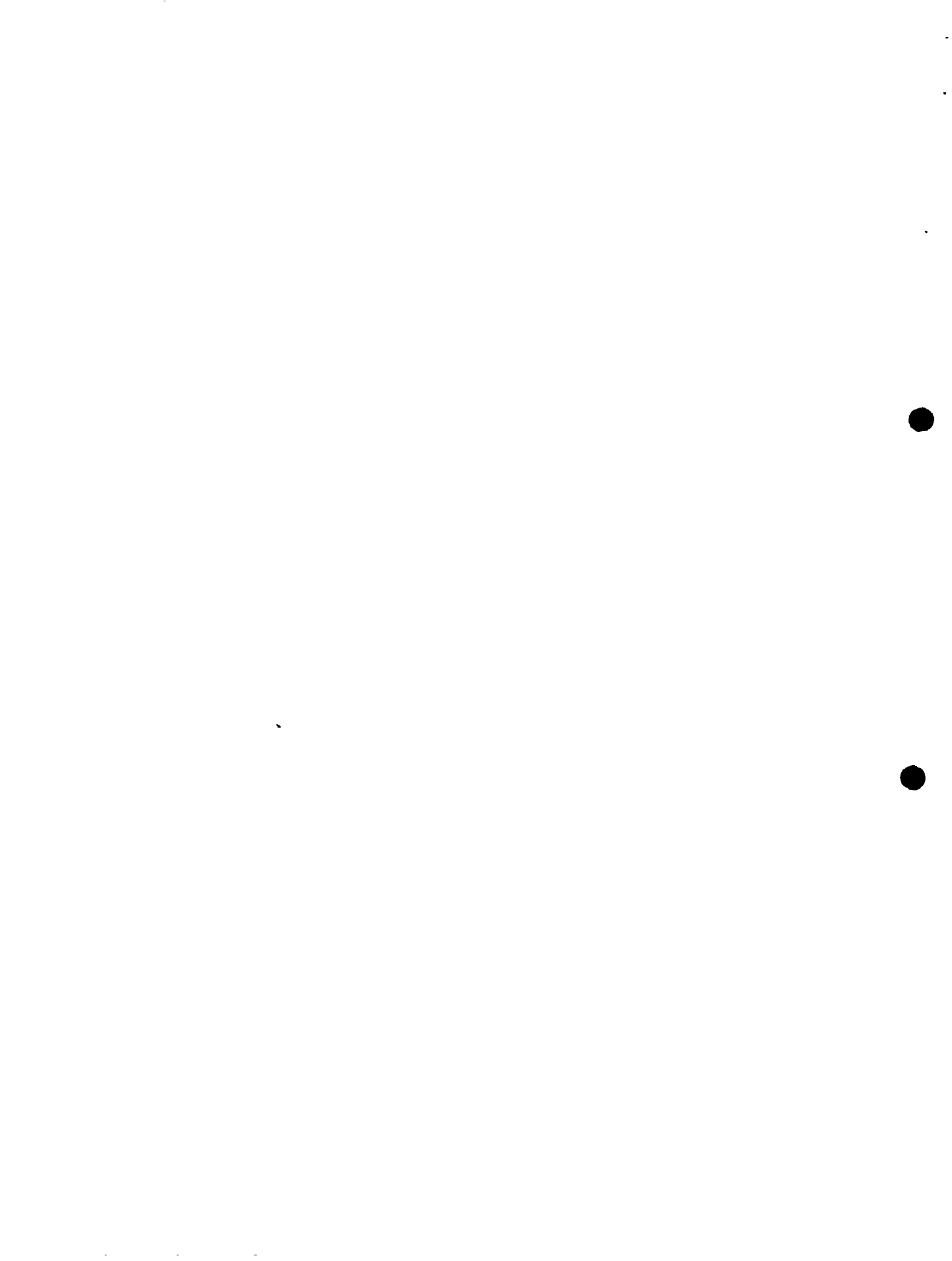
Investigators will have to determine: the yearly allocations per town; and the number of latrines this allocation permitted. In addition, information will have to be obtained concerning the following:

-- was the amount allocated insufficient? That is, could a municipality have installed more latrines if it had had the funds? (This information only available at municipal level);

-- was the amount more than was required, given the demand - that is, was money returned to the state or incorporated into the next year's budget? (This information can be obtained at state level).

-- to what degree could municipalities request increases in their yearly allocations? It is assumed that most budget figures developed by the state were made based on Public Works Department published rates for labor and materials and specifications provided by the World Bank/UNDP (TAG). It is understood, however, that in many states physical contingency monies can be added in cases where local costs were higher than state estimated costs. Such monies are important, for they, in principle, allow individual municipalities more flexibility in dealing with contractors, thus potentially increasing contractor participation and motivation, keys in the marketing elements of distribution and promotion.

-- What stipulations, if any, were attached to the charging and use of "Engineering Charges". It is understood that a certain percentage - approximately 8 percent - is added to the total base per latrine cost and made available to municipalities for administrative activities. In principle, municipalities can use these funds for any purpose they see fit, but certain states may have guidelines concerning their use. The disposition of these funds is important because in principle municipalities can use



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these funds to hire low-cost sanitation staff, to conduct publicity campaigns, etc. In most cases it is expected that these funds are simply placed in a common pot and used to defray costs in what is often a heavily deficit municipal operation.

It is also important to determine under what conditions a municipality may use these funds. Many municipalities have argued that since these Engineering Charges are based on a percentage of latrines constructed, and since they are unsure of the number of latrines they can actually build in a year, they are hesitant to hire staff or commit funds that may have to be returned to the state.

In short, the essential element of this budget analysis is to determine the degree to which local latrine construction was limited by availability of state funds.

Related factors are:

(a) administrative delays which interrupted the flow of funds;

(b) other unexpected disturbances or problems which interrupted the flow of funds.

The specific dates of interruption of funds are important.

4. Breakdown of Project Towns by income category - high, middle, and low (i.e., total Project Towns for each state divided into three categories).

Qualitative information

Qualitative information will be required concerning marketing elements. It will be important not only to determine what these elements are, but how well they were undertaken. Only by controlling for cost and for quality can one compare performance in two states.

A grading system (A - F) will be used for each marketing element of product design and development, pricing, distribution, and advertising and promotion. Following are major considerations for each element which should be considered when grading:

1. Elements of product design and development:

Although it is assumed that both Tamil Nadu and Kerala have adopted the standard UNDP fibreglass, twin-pit, pour-flush latrine, it will be important to determine whether or not there are any variations - differences in materials used, design, color options, etc., that represent a choice to consumers.



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Assuming no differences, investigators should analyze the process by which planners decided to use one and only one latrine design: whether it was largely an engineering decision, based on considerations of function; whether it was an economic decision, based largely on considerations of cost or availability of manufacturing capacity; or whether it was, at least in part, a consumer-based decision, the result of consumer market surveys indicating consumer preference.

As part of this analysis, investigators should assess whether the program could easily have been modified to accomodate different product choices without significantly adding to cost.

2. Elements of pricing. Although the basics of the pricing structures of both Kerala and Tamil Nadu are known, it will be necessary to verify them and to determine any additional relevant factors that may affect sales such as requirements for downpayment, terms and conditions of repayment, expectations of repayment, penalties, etc. Each of these elements will modify the effect of each pricing structure. In many states, for example, cost recovery is very poor, and few people ever expect to repay their loans. In others, such as Tamil Nadu, a system of private collectors has been set up to insure greater recovery.

3. Activities related to distribution. Distribution, in this marketing context, refers to the process of making the product available to the customer: delivering and installing the product; guaranteeing parts and labor; and providing credit. Tamil Nadu has chosen the State water authority - the Tamil Nadu Water Supply and Drainage Board (TWAD) - to implement its low-cost sanitation program: it constructs all latrines in Project Towns. Kerala has entrusted construction to the municipalities, who then contract individuals or firms to carry out the work. In both states the municipalities are responsible for credit administration.

The investigators, therefore, must attempt to determine not only the elements of this distribution (how it is carried out); but the quality of its operation, and details of cost. Is the system in operation one which responds to the needs of the customer? Has it been executed according to plan? What were its major difficulties? Are expenditures realistic in terms of expected contractor performance, municipal staff performance, etc.? What could have been changed to make it a more effective marketing device?

Key elements to consider, then, are:

-- contractual arrangements and contractor performance (in the case of Kerala) between the municipality and the contractor: are they satisfactory enough to assure prompt and careful work by the contractor? Did contractors complete the terms of their



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contract? Did they do so satisfactorily, and by what criteria? Were post-construction site visits made to assure quality construction? Were consumer complaints registered?

-- management relationships and public sector performance (in the case of Tamil Nadu) between the field (municipal) engineering units of the executing agency (TWAD - the Water Authority) and the regional and central management and supervisory offices of that agency: are these units managed in such a way to guarantee motivation and quality work? As above, was work completed according to program? Were quality control checks made? Were consumer complaints registered?

-- administration (both states): what efforts are made at the municipal level to provide and administer credit; to carry out site investigations, site supervisions, and follow-up? Is there suitable staff to carry out necessary functions and funding to pay for this staff? How are consumers affected by municipal administrative functions? Do they have to wait for their credit application to be processed? Do they have to wait to submit their application? Each administrative delay represents a cost to the consumer and will affect purchase decisions. It will be important, therefore, to determine the extent of these delays, their causes, and possible solutions.

4. Activities related to advertising and promotion. As suggested earlier in this document, it is assumed that in Kerala, employing the municipal management-private contractor model of program implementation, little additional promotion and publicity has taken place. According to the principles set forth by UNDP/TAG in 1979, profit motive should be enough incentive for contractors to actively promote the product. No additional public information should be needed. In addition, with concessionary prices, demand should be high enough for no motivational advertising to be necessary. As indicated in earlier discussions of distribution, however, unless satisfactory fees are paid, contractors may not only not do any additional promotion but may not complete contracted work as well. This in fact has been observed in a number of states where municipalities, in a desire to cut costs, have accepted low bids from unwary, small contractors, anxious to get work. These underpaid contractors have left work half-finished and have eroded the credibility of the program.

Thus, in order for the promotional aspects of the model to work properly, satisfactory contractual arrangements have to be made. This in turn depends on state government flexibility in allowing physical contingencies, permitting municipalities to raise fees if justified to get larger coverage; and on municipal willingness to take certain initiatives.

An analysis of Kerala's promotion and advertising activities, therefore, will, to a large degree be based on the analysis of



related distribution activities, enumerated above. In addition, however, investigators should determine what additional resources - paid or voluntary - have been mobilized for promotion.

In Tamil Nadu, little is known about promotion and publicity. It is assumed, however, that a special informational effort would be necessary to inform consumers about the public program. Since no profit motive is involved (the public TWAD Board is the implementing agency, carrying out all construction), promotional activities should be incorporated in an overall TWAD workplan.

In both cases, an assessment of the quality of advertising and promotion will be important, particularly in Tamil Nadu. Was market research carried out to determine the questions, reservations, desires, and expectations of potential consumers, on which to base an information campaign? Was the campaign carried out sufficiently to cover the population intended? Was it run long enough for the messages to have an impact? Was there a system of feedback whereby potential customers could get additional information?

5. Product warranties. The India program offered no product warranties. Investigators should, however, determine whether, given the long experience of the Pour-flush latrine, government officials would be willing to consider product warranties and under what conditions.

6. Cost reduction: A constant factor in the above discussion of market interventions is cost: the more costs are reduced for each intervention, the less the expense for government. Costs have been traditionally reduced through improved technology, improved management, and lower material and labor costs. As has also been suggested above, costs that are too low can also jeopardize the program. For each marketing intervention, therefore, investigators will be expected to determine to what degree actual costs are justified, and in what ways they could be reduced.

WORKPLAN

The collection of the above information will be the responsibility of an Indian consultant, chosen from a recognized private consulting firm, university, public management institute or institute of public administration. The consultant will have a background either in finance, public or municipal administration, or management, should have familiarity with state government programs and municipal activities, and should have proven experience in applied research and investigation. The work of the consultant will be supervised by the World Bank/UNDP South Asia Regional Water and Sanitation Group (RWSG) and its Washington-based staff.



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The steps to be taken are as follows (times in parentheses indicate the total time expected for the particular work item):

1. After Government of India and State Government clearance, the consultant will be hired. Job qualifications and Terms of Reference will be prepared in Washington by the Research Supervisor and sent to the (RWSG) in Delhi which will select candidates and send a short list back to Washington. INUWU Washington will make the final selection. Once the consultant has been hired, final Terms of Reference for the assignment will be prepared and transmitted (1 month; 7 total days for Research Supervisor).

2. The Consultant will proceed to Madras and Trivandrum to:

(a) Collect all state level data concerning program budget, expenditures, and latrine construction;

(b) Prepare an interview and data collection strategy for municipalities based on identified gaps in state-level data;

(c) compile a cost-of-living index for each state (cost of the same items in both states; purchasing power of Rs. 100 in each state) enabling a comparison of program costs and impact of subsidies;

(d) List all Project Towns by income category (low-, medium- and higher-income), and select two from each category for field visits. Since Project Towns are widely scattered in both states, selection will be based in part on practical considerations of available time and physical access. Consultant will arrange either for a state government official to accompany all field visits or for an official letter to be sent from the state government to each municipal chairman requesting cooperation. Consultant will make and finalize travel schedule to all towns (Total time for (a) and (b) 10 days per state plus one day travel from home based to each state, or 22 total days).

3. The INUWU Research Supervisor will arrive in Madras/Trivandrum to join the Consultant, and together they will:

(a) interview State Water Authority and Government Departmental Officials concerning marketing elements of the program: details concerning production, distribution, pricing, and promotion of latrines;

(b) interview central producers of latrine components;

(c) interview private, independent latrine manufacturers, retailers, and wholesalers to assess private market activity;

(d) interview PVOs, universities and other independent

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organizations that either play a role in the state program (e.g. in training, management assistance, educational materials development, etc.); or may have a perspective on it (Total time required for this activity 5 days per state or 10 total days).

4. The Consultant and the Research Supervisor will visit 3 towns in each state and will collect the following information:

(a) quantitative data on expenditures and latrine construction that was not available at the state level or which is needed to corroborate or update state-level information. Information of particular importance is latrine construction breakdown by socio-economic category, available from credit applications or from ward-wise breakdown of purchasers (municipal officials can rank wards by general socio-economic level and low-, medium- and higher-income categories can be established);

(b) estimates of the total expenditures by marketing category - product (latrine materials and labor); distribution (administration, credit management, supervision, maintenance); and advertising and promotion;

(c) description of operational procedures: bidding and contracting procedures; establishment of credit, credit administration and management, cost recovery; technical supervision and review; operations and maintenance; advertising and promotion;

(d) qualitative assessment of these operations: problems encountered, constraints, and possible solutions. Interviews with local contractors or state engineering units and individual households (1 day per town plus 2 travel days per state; 5 days per state; or 10 total days).

5. The Research Supervisor returns to Washington. The Consultant completes visits to an additional 3 towns per state (1 day per town plus 2 travel days per state; 5 days per state; or 10 total days).

6. The Research Supervisor returns to Madras and Trivandrum to collect any final information needed before beginning to compile, analyze, and write final report (3 days per state; or 6 total days).

7. The Consultant prepares final report including:

(a) townwise total latrine construction figures by year by socio-economic category of town, and by socio-economic category of purchaser (for the 6 towns per state visited);

(b) state total and townwise actual expenditure figures, by year, controlled for inflation;



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(c) state total and townwise breakdown of expenditures by marketing category, by year, controlled for inflation;

(d) state budget allocations by town, by year, compared with actual expenditures;

(e) qualitative assessment of each state program by marketing category, including possible modifications (total time 4 weeks or 24 days).

8. The Consultant sends report to Research Supervisor in Washington who reviews and finalizes (total time 20 days).

The total time spent by the Consultant will be 82 days. The total time spent by the Research Supervisor will be 47 days. The total elapsed time between receipt of Government of India clearance and completion of the work is estimated to be 6 months (1 month hiring of consultant; 1 month Consultant state capital work; 1 month first field visits with Research Supervisor; 1 month Consultant's final field visits and state capital wrap-up; 1 month Consultant write-up; 1 month Research Supervisor Final Report.

It is hoped that Government clearances can be received no later than May 1; the Consultant hired and ready to work by July 1; the work completed by December 31.

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Aide Memoire

Marketing Study

Low Cost Sanitation

confidential

Ronald Parlato
World Bank Consultant
December 10, 1989

1. The Consultant's Terms of Reference were to investigate the possibility of carrying out a marketing study of low-cost sanitation in India - a study that would assess the degree to which product, price, promotion, and distribution factors affect the sale of individual household latrines. The premise on which the study was to be based is that the individual household latrine - the product of an commercial transaction between seller and buyer - should be governed by the same market principles as govern the commercial transaction of any other product. The assumptions on which the study was to proceed in India were that: (a) enough data existed in India to permit a statistical analysis of the relative importance of individual marketing factors; (b) the state governments of Tamil Nadu, Kerala, and Gujarat would be willing to support such a study and benefit from it; and that (c) ORG - a private Indian consulting group - was capable of carrying out a study of this dimension.

2. Upon consideration of information gained during a two-week tour of the three states, the Consultant has concluded that such a statistical study would not be productive because:

(a) useful data is not available; and

(b) existing state government programs have long-standing and persistent institutional, financial, and management problems which overshadow marketing concerns and would distort a meaningful use of whatever data collected; and

(c) a reasonable private low-cost sanitation marketing model - that used by Sulabh International - already exists.

3. By way of more detail:

(a) In all three states two of the above-mentioned marketing variables - product and promotion - have little or no variation. In all state programs the standard UNDP product (latrine) specifications are adhered to absolutely. To enable some kind of meaningful association between the effect of product variety, consumer satisfaction, and sales, some product variations would have to exist whether in the materials used for the pans (e.g. fiberglass, mosaic, ceramic); in placement of the leaching pits

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(e.g. within or outside the premises); or in the design of the superstructure. In fact little if any choice is given the consumer, with pans and traps standardized and often centrally produced; few exceptions given to the rule of building within the premises, and rare cases of permitting single-pit latrines.

In all three state programs little or no discernible promotion has been done. Although information has clearly spread through individual communities, there is no way of verifying, with objective indicators, how or to what degree this was done;

(b) Price factors are distorted by the following:

i. In the case of Gujarat, the average price that a low-income, Scheduled Caste/Tribe family would have to pay - on a no-loan basis - is approximately Rs. 640, an average monthly salary. Although a small proportion of this is labor, the the major part represents cash purchase of materials. Under such conditions, it would be unlikely to find any evidence of wide-spread low-income purchase of latrines.

ii. In Kerala and Tamil Nadu, with more favorable pricing, price factors are skewed by low expectations of repayment. In Tamil Nadu, because of bureaucratic delays, no loan repayment has even been expected for approximately 8 months. Secondly, although property tax collection rates have been characteristically high in Tamil Nadu and sanitation loans were to be collected along with these taxes, the new state scheme to have local banks collect property taxes is likely not to include the recovery of low cost sanitation loans because of bank objections. In Kerala, Government is not sanguine about the repayment of sanitation loans.

Under these conditions where the consumer expectation not to pay may be strong, the price effectively becomes close to zero; and thus price effects not worth measuring;

iii. In Kerala, Government reports that in many municipalities many different low-cost sanitation schemes exist - IDSMST, HUDCO, GOI Scavenger-free and others. Each scheme has a different financial program, with different repayment schedules, cash downpayment requirements, terms and conditions, etc. Under such conditions, states Government, particularly because 100 percent grant programs do exist, few people have been interested in the 50-50 loan-grant option of the World Bank program.

(c) The state programs of Kerala and Gujarat are characterized by the same management and institutional problems that have existed since the beginning of the program (see Parlato, R., A Monitoring and Evaluation Manual for Low Cost Sanitation in India, TAG, World Bank, 1984 - a study done in 1983; and Parlato, R. and Boydell, R. World Bank/TAG Back-to-Office Report: Tamil Nadu and Kerala Low Cost Sanitation Program, December 1987). Municipalities, with few



revenues, a weak infrastructure, poorly-paid, -trained, and -motivated staff are required to carry out promotion and publicity, loan-grant administration, technical supervision, contracting of masons, and other project-related work. In many states, such as in Kerala and Tamil Nadu, they receive no centage or supervision charges and are required to raise these revenues from their own tax resources. Water Authorities, responsible for large public works are often loathe to spend much time on the administration, management and supervision of low cost sanitation program. In the case of Tamil Nadu, where the amount of work of the TWAD Board is considerable as the executing agency, the 12.5 percent centage charges they receive they consider insufficient; in the case of Kerala, the centage charges recovered by the KWA may be too much for the work they do, relative to that of the municipalities.

In Kerala a complicated administrative/management structure which involves the KWA as nodal agency; the DMA as supervisory agency; the municipality as executing agency; the individual householder as contractor; and the private mason as executor does not encourage efficiency.

Under these conditions, consumer access - reliable and efficient construction, efficient loan/grant administration, the provision of product guarantees and service contracts, the provision of relevant, quality information - is unlikely to be widespread.

The Consultant feels, therefore, based on this short review and on a 6-year association with the India Low Cost Sanitation Program, that the persistent management, financial, and institutional inefficiencies and dysfunctions that have contributed to slow performance in Kerala and Gujarat are at the very center of the urban low cost sanitation question. Unless a more rational distribution of tasks among public, private, and non-governmental institutions occurs; unless a more objectively-based financial scheme is established; and unless efficient management systems are put into place, progress is unlikely to improve. More to the immediate point: given these overweaning - and already-identified if not quantified - institutional problems, more subtle but equally important marketing issues are lost.

(d) Another factor which would confound statistical analysis - and one which represents a need for more disciplined planning - is the frequent revision of project targets. For example, because Gujarat could not meet its latrine target in 15 Project towns, it expanded the number to 55 to include 40 nagar panchayats, with each locality required to build only a very few latrines. In this case any meaningful association between marketing factors and sales cannot be expected since with such small targets per town they are likely to be easily achieved. Tamil Nadu has similiarly revised its targets downwards in many municipalities which exhibited poor performance and increased targets in others. Since the shift may



have been to larger municipalities, the relationship of marketing factors to overall sales is skewed because the ratio of target latrines to total population may be very small even with the increase in latrines. Similarly, those towns with downwardly-revised targets are more likely to have a success regardless of individual marketing factors because "problem consumers" may have been eliminated. In fact, a number of reasonable reasons were given for not being able to meet targets: people who lived in houses that were not assessed did not wish to come forward for a latrine in the fear that they would then be assessed; tenants were not allowed to apply for a latrine; space considerations did not allow for latrine construction; difficult terrain impeded other construction.

In most cases, however, there are solutions. Technical alternatives can and are being sought for difficult physical conditions. The problem of landlord-tenants might be resolved through tax incentives. Once again, the point is not only that these difficulties confound research and make the collection of useful information unlikely, they point to the need for their early resolution.

In the case of Kerala, financial problems have forced a dramatic downward revision in targets. Government simply does not have the funds to invest in low-cost sanitation.

A final point relating to sales data: the years of active construction in each state differ and construction during each year was subject to delays. Tamil Nadu, for example, has made its real progress only within the last year. Although Kerala began its program in 1986 it had start-up problems and then persistent financial problems which slowed if not stopped construction. Gujarat, although administering the Project since the early 1980's began active construction only in 1985. Comparing performance by year by state would then be difficult.

(e) Another factor which makes the originally-proposed marketing study less desirable is the fact that in the one state of the three that has registered considerable success in meeting targets - Tamil Nadu - the operational model is likely to be discontinued. It is not evident that the TWAD will be the executing agency for any increased Protection of Civil Rights Act Scavenger Removal programs. In view of the volume and importance of TWAD's water and drainage activities, low cost sanitation may represent more of a financial liability than asset.

In the case of Gujarat, Shri Dave, Officer on Special Duty, Health and Family Welfare Department, and former GWSSB Member Secretary and Managing Director, has expressed his sentiment that urban sanitation should be addressed through water-borne systems, and not low-cost sanitation, which should be reserved for the rural areas. Given this low commitment, it is unlikely that a review of that state's performance will be elucidating. Gujarat, however,



does realize the importance of NGOs such as Safai Vidyalaya, and intends to involve them, with financial incentives, to help execute future rural sanitation programs.

(f) A final reason why the originally proposed marketing study does not seem feasible, is that what appears to be a reasonable low cost sanitation marketing model already exists. Throughout all three states visited, Sulabh International was mentioned for the comprehensiveness and efficiency of its approach in building individual latrines. They promote the scheme, collect applications, arrange for financing, do the construction, provide product warranties and service contracts, provide information, and offer some product variations. While they have been criticized for relying exclusively on the twin-pit, pour-flush latrine, they, as an organization do represent a market- and consumer-oriented approach. They satisfy government - municipalities are happy to have this agency carry out work that they, for reasons mentioned above, cannot do. Consumers are satisfied because they get a guaranteed product in a short amount of time.

Since this organization already exists and its operations in individual household latrine construction are reported to be successful, the need for detailed statistical research on marketing is further mooted. What would be important would be a thorough review of Sulabh's approach, methodology, and performance to determine in what ways this model may be more widely applied.

4. The Consultant recommends that instead of a retrospective, statistically-based study, Government should:

(a) review the basis on which loan/grant mixes are calculated and attempt to make a more realistic pricing structure which considers issues of downpayment, cost recovery, and related issues which affect purchase price;

(b) review the possible institutional alternatives to current programs and address important issues: can large water authorities be legitimately expected to undertake small-scale low cost sanitation projects? Can private groups like Sulabh International and Safai Vidyalaya undertake more work and become, in fact, full-service marketing agents? What should be appropriate roles for water authorities, DMAs, municipalities, and private agencies in unified programs given the strengths and weaknesses of each? How should administrative costs be shared to provide incentive and support where needed?

Such a review should include a careful, analytical, objective look at the institutional, management, financial, and political constraints which have affected the current urban sanitation program.

(c) assess more carefully consumer attitudes, preferences, and

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concerns, with particular reference to product design and special features, informational and financial needs. Such a consumer study would be useful in corroborating the analysis of institutional performance suggested above. A useful study might be done, for example, comparing households that did purchase low cost sanitation and those that did not, qualifying them by income, type of household, and other characteristics; and investigating attitudes towards price, product, promotion, and consumer access. Such a study might include households from different schemes - those covered by Sulabh, those covered by the World Bank-assisted projects, and those of IDSMST, HUDCO, and others. The study might investigate four types of households: those that purchased a latrine; those who applied for a latrine but who were rejected; and those who had never applied. Questions for those people who never applied would attempt to find out both why they were not interested and what type of facility, at what price, etc. they might be interested. Such prospective marketing studies involving showing working models, photographs, etc., have been shown effective in assessing at least initial preferences and consumer interests.

5. The Consultant has had a long association with the Institute of Management and Marketing (IIM) in Ahmedabad and has been particularly impressed with the grasp of the subtleties and complexities of public sector enterprise and management at least on the part of some of its staff. This organization would be an excellent choice to assist Government in the type of management and institutional review suggested above. The Consultant feels that ORG would be a good institution to consider for consumer market surveys.

6. In the course of the two-week visit, the Consultant met all key personnel in the three states' water authorities, DMAs, and municipalities. In addition he met representatives of Safai Vidyalaya, Sulabh International, IIM Ahmedabad, and ORG.

7. The Consultant regrets that because of disruptions in the Indian Airlines schedule which prevented his anticipated arrival in Delhi on December 8th, a final debriefing with GOI was not possible. He hopes that this somewhat detailed Aide Memoire will serve in lieu of that debriefing.

8. A Back-to-Office Report, the main portion of which will be this Aide Memoire, will be prepared in Washington by the Consultant and submitted to Government after passing through proper channels within the World Bank. It will contain a complete list of persons contacted.

9. The Consultant would like to thank Ms. Indrani Sen for making his visit possible; and would like to express particular thanks to State and local officials who made his visits productive and pleasant.

