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Women and solid wastes in poor communities

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RESOURCE SCARCITY, WOMEN, AND SOLID WASTE MANAGEMENT

The subject of the use of waste materials by women to meet basic needs and generate income and work may seem to have no relevance to "infrastructure." The justification for addressing this topic is that solid waste management (SWM) is one of the essential services that any healthy community must have. To plan sustainable and equitable SWM in developing countries requires not only a knowledge of the nature of wastes generated by households, enterprises and businesses, but also an understanding of how wastes are used in communities, and what livelihoods are based on wastes. This is important because waste reduction and recycling are coming to be recognized as the basic premises of all waste management.

Equipment and procedures designed without any regard for waste recovery and recycling in resource-scarce societies rarely achieve their goals because those who depend upon wastes continue to try to gain access to them, thwarting, in the process, the plans of municipal managers. Despite this evidence of the needs of poor communities, municipal or corporate sector recycling schemes are sometimes suggested that would divert wastes from current users without assuring them access to substitute resources. These miscalculations occur partly because informal waste recovery is not seen to be relevant for the planning of basic services.

Because poor people extensively exploit wastes as resources, there are special relationships between waste management services, household management, and work which may not pertain to other dimensions of infrastructure. Since women in most societies tend to have initial control over the generation and reuse of wastes in the household, it is relevant to ask whether there are, within the "special relationships" of poor people to wastes, further distinctive aspects of women's work that warrant particular, even separate, attention. The practical issue for meeting basic needs is whether solid waste management (and environmental management in general) will be more successful if planners

incorporate the findings of research on "women and wastes."

The work of urban women with waste materials is relevant for cities' economies and services in three principal areas: the use of wastes to meet household needs, informal work in waste recovery and recycling, and women's roles in municipal solid waste services (ref. 1).

WASTES AND HOUSEHOLD NEEDS

The use of wastes by poor households to meet basic needs is observed in all developing countries, although there is not even in a single case-study to provide a sense of how important wastes can be in household management. The use of wastes for fuel, particularly animal dung and agricultural residues, including urban vegetable wastes, such as coconut husks and shells, has been estimated in a number of areas (ref. 2). Waste burning especially of cattle dung, is a routine matter for poor families of squatters and pavement dwellers in India. Another use of dung is also common in the Indian sub-continent--the preparation of floors and sometimes walls with dung wash. Women, as the providers and organisers of daily household needs, are responsible for marshalling these waste products, although they may often rely on their children to gather dung or other wastes.

Prior to the building of a shelter, women may play the major part in assembling the materials for a squatter's shack. They keep a look-out for items such as strong plastic, scrap iron, lumber, broken bricks, and rags that can be used to repair their shelters, repairs that they will make as routine housekeeping. One can hypothesize that the shorter a poor urban family is of ready cash, the more the women and children of the household must seek out wastes and resort to conservation and reuse as strategies (ref. 3). This search for wastes frequently takes women and children beyond their immediate neighbourhood (for poor communities are not generators of large amounts of useful wastes) to the waste receptacles of rich districts, commercial areas, and, ultimately, to garbage dumps (ref. 4).

In these circumstances, the daily work of poor urban women becomes closely linked to the availability of various waste materials. When these apparently trivial activities are multiplied by the millions of very poor households in cities and towns in developing countries, daily living can be seen as significantly waste-absorbing. At the same time, one can understand the importance that access to wastes assumes for low-income families.

INFORMAL WORK BASED ON WASTE RECOVERY AND RECYCLING

In most cities of developing countries, waste gathering extends beyond household needs as people find employment supplying the demand of small and large industries for wastes--paper, plastics, metals, rags, rubber, leather, glass and ceramics, bones--as substitutes for raw materials. Each large city manifests an intricate network of waste gathering, dealing and transportation--waste pickers and itinerant "announced" collectors, sorters and processors, buyers, dealers, and manufacturers. In South Asia some of these roles remain linked to traditional socio-religious statuses.

Although local systems usually have distinctive characteristics, the main status lines in waste recovery are uniform in developing countries: women and children predominate in the lowest levels of waste gathering, that is, those that depend on the least valuable wastes whose retrieval demands the greatest amount of simple labour for the lowest cash returns. Thus on dump sites that receive largely organic and inert rubbish in Asia one finds mainly women and children, except at times when men know that trucks will arrive from special areas such as the airport or certain commercial and residential neighbourhoods.

At Calcutta's Dhapa dump, for instance, most of the material retrieved consists of coconut shells, coal cinders, and pieces of wood. Besides pieces of glass, the manufactured wastes are very damaged and dirty fragments of paper, plastic, cloth, and leather. Unless they know that better materials are likely to be available, men resort to such a dump only if they can find no other kind of work at all. Casual observation suggests that cities where more valuable materials reach dumps in large quantities have larger numbers of male pickers. [It is possible that religious values may influence male/female ratios among dump and street pickers; in Muslim societies women may not venture readily onto so public a place as a large garbage dump. In Indonesia, more women are absorbed in sorting, packaging and simple processing of

wastes than in collecting for industrial trading (ref. 5)].

The traders and managers of the waste recycling industries are, by all accounts, men. Women and children usually receive less for the wastes they sell and they find it harder to get advances or loans from buyers for equipment to reduce the burden of waste gathering. In South Asia women do not take the role of itinerant collectors who go from household to household, receiving, buying or bartering wastes. It must be extremely rare for a woman to "rise up" in a system of waste trading, unless she is part of a successful family business. I know of no instances of women acting as dealers or running independent waste trading enterprises.

How do these household strategies and informal work relate to the nature of solid waste services?

The substitution of wastes for purchased materials, even if the wastes are not entirely free, represents important savings for poor households, and resource conservation for the society as a whole. This extensive waste recovery, incidentally, reduces the amounts of wastes that cities have to collect, saves dump space, and allows the residues to break down into productive compost (ref. 6). Few municipal managers, however, see informal waste recycling in this light, and there has been very little discussion of ways to facilitate waste recovery by the needy (ref. 7). Most changes in equipment and techniques are explicitly designed to prevent or discourage scavenging of recyclables. The result of the introduction of large, lidded, containers (especially roll-on-roll off containers) is that recyclables are not retrieved in neighbourhoods, but are transported to dump sites (ref. 8). This means that less material is locally available for household needs; poor people are thus compelled to either purchase wastes from traders, or seek out waste transfer points and dump sites.

WOMEN MUNICIPAL WASTE WORKERS

The lowest jobs of the municipal cleaning system may be practically reserved for women in some countries, and they are rarely, if ever, promoted. In some countries of South America, women street cleaners are routinely subject to sexual abuse, but no explicit reference has been found to this in Asian cities. In some Indian cities, where municipal workers are given assisted housing, on the death of her husband, a widow immediately seeks work in the municipal corporation, and is usually regarded as having a right to the first cleaning job available, because, if she does

families seek to place children and grandchildren in the municipal labour force. Thus the need for housing compels these children, who might have the chance of better work, to continue in the job of the father or mother. The working conditions for women sweepers are often very poor--they may have no footwear or gloves, no adequate implements for sweeping and waste collection. But fear of losing the valued municipal job, among other things, means few complain about the situation, or request child care services and maternity leave. This menial work, however, gives these workers an insight into waste behaviours that could be valuable to municipal planners.

RESEARCH AND COMMUNITY ACTION

A number of ideas for research arise from this perspective on women and wastes, enquiries that can help community action and official policies for environmental improvement.

1. Household economy studies to estimate the importance of wastes in meeting basic needs, especially under conditions of increasing unemployment or scarcity of basic necessities. What are the waste reuse and waste disposal patterns in the household and how do they vary with income, education and the structure of the household, or other social characteristics?

2. Surveys and interviews on attitudes of women to solid wastes. What is the level of knowledge about health hazards from uncollected solid wastes? An important issue to probe is whether the use of wastes as resources affects the perception of wastes as hazards. What general concerns do women have about access to wastes, neighbourhood cleanliness, and municipal solid waste services? These enquiries can move from individual perceptions to "collective diagnosis" (ref. 9, p. 240) that becomes a way of consciousness-building, laying the ground for community action.

3. Roles of women as waste pickers on streets and at dumps and in the sorting, processing, trading of wastes as feedstock for industry. It would be useful to know women's earnings, the conditions of their work, and the types of control exercised by men in the worlds of waste. Studies of the health risks of different kinds of waste work have yet to be undertaken.

4. Examination of the options for improving women's earnings and work, such as co-operatives [c.f. work of Self-Employed Women's Association (SEWA) in organising some paper pickers' co-operatives (ref. 9, p. 236)]. Case studies of co-operatives or other forms of organization in this work

would be useful. Community organisations can help identify productive but non-hazardous waste recycling work (for instance the making of clothes and quilts from textile scraps) that could be supported to give women better opportunities for recycling work. Most of the general recommendations of the Government of India Commission on Self-Employed Women are relevant to waste work (ref. 9).

5. Knowledge and perceptions of women municipal waste workers of community needs and issues in solid waste services. Since most municipal workforces employ some women in city cleaning, their experience as both household managers and public cleaners could be drawn upon to provide insight into attitudes towards wastes and waste management behaviour in the community. Discussion groups of municipal workers could become a force for better adaptation of waste services to household needs. Showing respect for the knowledge and insight of women municipal workers is a first step in enhancing their self-esteem. Research must also identify the particular needs of women workers, with regard to child care, or possible risks for pregnant women, for instance.

Without waiting for research results, community development groups can explore the potential for integrating women's intimate knowledge of household wastes into a concern for "neighbourhood housekeeping" (ref. 10). By harnessing the knowledge that people have of their wastes, the activities of waste gathering and waste reuse, rather than being seen as largely problem-ridden, can be recognized as having environmentally positive elements. One hopes that this change in perception will lead to more constructive ways of accommodating informal practices to public management.

CONCLUSION

In striving for decent living and working conditions, communities need to look beyond the usual generalities of improving women's status, supporting women's work and providing appropriate community facilities, to probing the specific needs and relationships that arise from the fact that wastes represent resources and create particular employment opportunities in low-income communities.

Ultimately, as research on waste management and waste work proceeds in developing countries, scholars and community leaders may decide that anything "special" about women's relationships to waste management and waste work is overridden by the social, economic, and environmental deprivations of all those associated with the lowest, most polluted, levels of waste work.

There is some basis for assuming, however, that, through their household roles and informal and municipal work, women acquire distinct insights into attitudes to wastes and waste behaviours that until now have not been used for environmental improvement. Whether or not it is worthwhile to pursue research on women alone, solid waste managers must eventually address the phenomenon of waste recovery by the poor and consider how conventional plans for SWM can be adapted to waste recovery and recycling.

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