

Gender and Waste

Integrating gender into community waste management: project management insights and tips from an e-mail conference, 9-13 May 1998



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CHAPTER 1 WHY GENDER AND WASTE

In March of 1998, WASTE, Advisers on Urban Environment and Development, agreed to do an e-mail discussion-conference on gender and waste. The idea had been under discussion for nearly a year, in response to the interests of a few practitioners who work in these two fields, or at their intersection. The overall results, are presented in a separate UWEP occasional paper: "*Gender and Waste: Electronic discussion group, 9-31 May 1998, A Summary*". The full presentation of all the contributions can be found via the website of WASTE: <http://www.waste.nl>.

As in all areas of development practice, waste management practitioners, consultants and policymakers are frequently asked: "but what about gender? Are there gender interests or implications that you can make based on the results of your projects? But what about the roles of women?" Sometimes, too, these questions are asked in order to fulfil a policy or funding requirement to "consider gender", without there being a clear statement of why or in what way gender is to be considered.

All too often, the response to the raising of this issue is perplexity, puzzlement, or frustration. If any response is made, it frequently limits its scope of inquiry to the practical gender needs, or conditions of life and work, of the women who work in waste, or who scavenge dumpsites in the project area. In projects, there may be an effort to impose quotas for women's employment; to encourage women in management; or to count the number of women waste pickers. The result is that the "gender" question is reduced to a simplistic (and boring) game of counting the participation of the sexes in the project, the survey, or the enterprise.

1.1 Gender as solution, not problem; gender analysis as tool, not burden

For those of us working on gender issues, there is an irony in seeing gender as a problem or a burden. Gender analysis, in contrast, can perhaps better be seen to be a tool, a lens through which a project can take on new dimensions. Looking through the gender lens, muddy issues can become clear and intractable problems appear in a new and fruitful light. One purpose of this paper is to illustrate how gender analysis can serve as a tool for project management and a means to improve outcomes, rather than being a burden on policymakers and programme planners.

The Gender and Community Waste Management e-mail discussion in May 1998 was designed to begin to address these questions at a higher and more productive level. We wanted to begin a discourse and an inquiry about the 'real' gender implications of waste activities and the ways in which gender and waste are or are not truly related topics. Might women and men have different perceptions of waste management in their communities? How are their roles and tasks in household and community related to waste activities? What opportunities do women and men have to be engaged in small waste enterprises? How have gender differences affected the sustainability and effectiveness of waste management? And what strategies and methods can be applied to enhance the contribution of both women and men?

We wanted to do this in a way that would inform theoretical and analytic work without losing sight of the practical experiences and real-world nature of waste activities in the developing world. We wanted to explore this both in terms of waste management practice and in terms of the access and control of resources in the waste stream or derived from it. We wanted the theoretical basis of gender analysis to help us understand real-world experience, rather than allowing concepts to obscure the nature of this very unglamorous reality. We also believed that certain aspects of waste management practice within families and the household and the experiences of waste and recycling practitioners and entrepreneurs, could shed light on gender roles, rather than simply the other way around.

Our specific hopes were to provide an electronic space and time for practitioners and scholars to talk to each other about waste management and gender, to share experiences, analyse each other's projects and provide and gain new insights. Our belief was that after the discussion, both the questions and their possible answers would be more insightful and would lead to improvements in waste management practice, in the strategic gender interests of women and men and in the practical gender needs of waste workers. We also hoped for some insight that would help us put together better projects and to evaluate ongoing activities more fairly.

With this in mind, we offer the insights from the Gender and Waste Email Discussion in a format designed to indicate to waste management planners and project managers the ways in which gender can affect their projects and with a focus on troubleshooting, problem-solving and project management.

Box 1: Community-based waste management

Community-based waste management is seen as one of the components of urban waste management, in which neighbourhood communities, households, community based organisations and small, informal enterprises are engaged in collection and disposal, re-use and recycling of waste materials. Women and men, girls and boys are engaged in different waste-related activities, partly because of cultural traditions and conventions, partly because of practical interests, such as earning income and maintaining a healthy living environment and partly because of the wish to gain recognition as a worthy community member. Such waste activities range from managing the resources within the household or family to the more formal municipal activities of collection. They include disposal, re-use and recycling; they comprise as well community decision making and management and the ways in which individuals, communities and governments arrange and negotiate the diverse interests of the public and private sectors.

1.2 Participant selection and themes for discussion

The organisers of this e-mail discussion were very clear in stating their hopes that the participants would contribute from their own practice, experiences and research, rather than offering ideas and critiques not based on practice. We had a fairly assertive selection process, in which we encouraged practitioners and scholars with concrete experience and projects to join the discussion and discouraged those without experience, although in the final analysis, everyone who really wanted to participate was accepted.

In order to structure the exchange and stimulate discussion, we formulated questions in four areas, or on four themes, which are presented in Box 2 below. These were distributed to the participants a few days in advance of the designated time for discussion.

Box 2 Themes presented for discussion

1. *The gendered nature of waste in specific cultures familiar to the participants*

Who defines if an object is 'waste'; who makes it; who owns it; who is responsible for it; who gets blamed for it; who is allowed to scavenge, reuse, or repair particular types of waste? Are different kinds of waste differently gendered? For example, has human bodily waste a different meaning for women and men; are both women and men socially permitted to touch it? And is human waste different in this respect than, for example, household garbage?

In the specific cases where women are economically, socially, educationally, and/or culturally disadvantaged, does this create a perceived affinity between women and waste, because of the low or marginal status of both? If women's access to all resources is limited or denied, does waste become the resource of last resort? Is waste work seen as the only area which is open to women, because of their low status and limited education?

2. *Gender and responsibility for household and community cleanliness*

What are the gender characteristics of the task or project of community waste management, including human and animal waste management, street sweeping and the maintenance of public spaces, separation of waste at source, re-use of waste materials, collection, transport and disposal of solid waste from households and businesses?

Women are usually associated with responsibility for cleanliness of the home and for the health of the family. Does this translate to responsibility for or special interest in cleanliness of the community? Are there special aspects of women's role in community maintenance that relate to responsibility for waste management? At which point in the waste management trajectory (if any) does this special interest 'switch over' to men and what are the aspects of that shift? What measures can project staff take to respond to these gender characteristics?

How does the gender balance of power and access and control of financial resources within the household and the community affect the demand for waste removal services? And how does this affect willingness to pay? How does it affect willingness to invest in, manage and maintain household infrastructure such as compost bins, soak pits, or 'modern' toilets? How does this affect willingness to do volunteer work for the community? And, knowing that gender affects for example willingness to pay, how has this been translated into the practice of waste projects?

3. *Gender and community-based waste enterprises*

What are the gender characteristics of small waste enterprises, for example in terms of size and potential for development, waste materials managed or recycled, division of responsibilities and tasks, working conditions, access to technological innovations and income level?

How can project implementation focused on micro- and small enterprises and co-operatives, ensure that women's existing enterprises are not disproportionately ignored or disrupted and that women share appropriately and equitably in the benefits of new projects including being hired as workers, managers and the like? Are there examples of how this has happened?

4. *Gender and waste management: policy and practice*

What strategies can strengthen recognition for women's productive use of waste-derived resources? How can planners and development support organisations ensure that women's access to resources in the waste stream is not disturbed by modernisation or privatisation of waste systems?

What can gender analysis tell us about improving sustainable and environmentally sound waste management projects and practice? How can an understanding of the gender characteristics of households, communities and small enterprises improve the environmental and economic performance of micro- and small enterprises and co-operatives? How should gender be factored into cost recovery and fee administration schemes? Can the discussion group participants give examples of gender-sensitive methods in waste management?

Do women and men differ in their preferred policy and management approaches to waste, or in their selection of technology? How (if at all) does this play out at the community level, in local government, in NGOs and CBOs and in international agencies and development organisations? What does this suggest for the choice of waste, recycling and composting personnel and staff for government organisations, micro- and small enterprises, co-operatives, NGOs and the like?

1.3 Discussion of the themes

The idea to start with the question of whether the very definition of waste had gender aspects turned out to be extremely fruitful, opening a broad new area for discussion and creating a rationale for asking, in almost any waste project, whose definitions of waste are operational.

The questions of responsibility and community appeared to be inter-linked: in some ways, the responsibility question was answered at the household and personal level, that of community at the community or political level. There was a large area of overlap in the two. There was also not a great wealth of experience, which strengthens the observation that while both waste and gender practitioners may be thinking about the connections between the two subject areas, to date there have been few practical projects which focused on the intersections between waste and gender.

From the fourth theme, policy and planning, emerged the dual focus that informs the research agenda in Chapter 8. On the one hand, the need to focus on the practical gender needs and strategic gender interests of women waste workers, especially, conditions of work and power relationships within enterprises and in negotiations between enterprises. On the other, the ways in which the position of women as household managers affects (or needs to affect) the ways in which cities and community organisations organise collection efforts.

1.4 A planner's approach

This document is designed to translate the rich and productive discussion into specific insights and approaches that make a practical contribution to waste management projects in the developing and transitional world. While the e-mail discussion was organised around the four themes, this document has a different structure. We have divided it into four substantive chapters, loosely connected to the four themes, which reflect common approaches to waste

management project trajectories and which show how the 'gender lens' can be useful in improving outcomes as well as in avoiding problems.

While the document has an order and is designed to be read in sequence, there is some overlap in the chapters.

The intent is that a reader interested in any of the specific topics could read the relevant chapter with emphasis and skim the others.

The four following chapters are:

Chapter 2: Gender and waste stream characterisation and analysis

Chapter 3: Gender factors in analysing the waste management baseline or status quo

Chapter 4: Gender and economics and finances

Chapter 5: Gender, community and waste management.

Based on the accumulated wisdom of the participants, Chapter 6 is a kind-of quick checklist of the kinds of problems in waste management projects which might profit from trouble-shooting from a gender perspective.

Chapter 6: Trouble-shooting with gender analysis: red flags indicating a possible gender problem

Chapter 7: Agenda for research and project development

Finally, Chapter 8 is an appendix, with a list of the participants and their contact information as of the summer of 1998.

CHAPTER 2 GENDER AND WASTE STREAM CHARACTERISATION AND ANALYSIS

The discussion on the gendered definition of waste provides a stimulus to consider the concept of waste itself more closely. According to the Oxford English Dictionary: waste is something that has no more value. 'Waste', however, is a blanket term, whose precise meaning needs to be clarified in context. Just as beauty, waste is in the eyes of the beholder, waste may mean different things to different people.

Certainly, waste refers to material or an object that has been used at least once and has no more value to the original owner or user. At that point, however, it does not necessarily become useless waste. The next person may view this same object as a valuable input in the household or in the production process of a workshop, or as a source of direct income.

The practices of composting, recycling of plastic and paper, waste picking at dumpsites etc. are the concrete expression of the different views on so-called waste. The claims on the waste stream, in terms of the core gender analysis ideas of access and control of resources, are very relevant to the area of community waste management. When there is competition about waste materials as a valuable resource, women often have limited access to these materials. Thus, in planning waste projects it is useful to identify and develop categories of ownership and responsibility in relation to the items and materials in the waste stream.

2.1 Waste is not a neutral concept

Almost all waste projects, whether research, planning, analysis, or evaluation, begin with a characterisation of the waste stream. The e-mail discussion teaches us, first, that 'waste' itself is not a neutral concept: there are many ways of characterising used or non-usable objects and the very idea that something is waste may be alien to some cultures and ways of thinking. In particular, within the same society, even within the same household, men, women and children may have differing perceptions and views of what is waste and what is not.

2.1.1 *A working definition*

Although 'waste' itself is not a neutral concept, it seems necessary to find a working definition. Borrowing loosely from the literature, we offer:

'Waste' is any item, material or substance derived from human activities or human or domesticated animal bodily functions which has outlived the purpose for which it was intended and which does not appear to its owner to be useful for secondary purposes. It becomes waste when its owner or their agent chooses to discard it by returning it to a natural medium (usually water or soil, but sometimes also by burning and release of smoke to the air) or by releasing it to the responsibility of the community, municipality, or waste collection entity. 'Point of disposal' refers to the moment and physical place at which the owner transfers his or her responsibility for the waste to an institution or to a natural medium.

Planning Tip 1: Before doing any waste surveys, check with groups of women and men as to what materials are considered waste, what categories of waste are in use in local discourse and practice and what materials actually occur in the local waste stream. It may be necessary to develop a locally valid classification, which is later reconciled with categories of waste materials recognised by the World Health Organisation or other international bodies.

2.1.2 *Generators matter*

The nature and character of the waste producer or generator may attach itself to the waste and result in the waste being defined differently depending upon who has produced it. Generators may be classified as women, men, children, group or village insiders or outsiders; they may be individuals, groups, corporations, or other entities, or urban or rural dwellers; they may be categorised by social class, age, sex, and occupation. Thus in any project targeting a specific waste or particular waste related behaviour, it is helpful to invite information about 'whose' waste it is.

In the words of one participant: "... waste from outsiders [not from the reservation] tends to be viewed as dirtier and more likely to be waste. For example, each time we would come across a non-Indian open dump, the tribal members in our group would estimate the waste amount at much higher than it actually was. They'd also use descriptive words that conveyed their relatively higher disgust (we had forms that required both a quantitative and qualitative count). [One tribal member] insisted on driving miles and miles out to a place he said had a really bad dump. It turned out to be a non-tribal member's place that had a few cardboard boxes and some miscellaneous, still in-use farm equipment."

"On the other hand they'd down play some dumps that were all Indian generated. One dump on private Indian-owned land had about 75-50 gal oil barrels 'stored' on the ground next to a wetland and the tribal member who was accompanying me said "oh that's not so bad, you don't want go over there - that's Indian owned - he's okay".

Planning tip 2: When surveying about waste, include questions on its source and who generates it. Then introduce an independent set of questions that will elicit bias relating to the generator and his/her/its status.

2.2 **Women manage waste at home**

Literally, this means that women 'receive' the discarded materials once other members of the household have discarded them. While the participants in the discussion generally agreed that women are the repository of last resort, questions remain about access and control of waste when it becomes a household-generated resource. While economic theory (and much municipal planning activity) looks at the household as an indivisible unit, men and women within the household have differing access and control of resources (Khabeer, 1994, pp 98-106).

Therefore, it is not always clear whether women are the ones who know and decide what is useful and what is to be discarded. In particular, it is not clear whether a woman who would choose to extract an article from the waste stream to use in her own areas of responsibility is

able to pre-empt the claim to that article that might have been staked by another household member with more – or different – power and status. A woman, for example, may prefer to prepare and sell compost, while her husband may want the organic waste as food for his animals.

One participant from India pointed out that men tend to recognise and 'rescue' specific items from their household waste stream (that women may not necessarily recognise as valuable) that could be useful to them in their peculiar domains of household repair, general maintenance, etc. Men also tend to deal with the items that have resale value: metal, wood, paper etc. and can generate direct income through resale to junk dealers'. (Gupta)

In another Indian example, one participant observed that at least in the Indian settings the men “do have a fair knowledge of what can be reused and what should be thrown away, though women do have an edge over them. Often old plugs, wires, the metals, wood pieces etc. are saved to be used later. One of the reasons could be that these are generally considered to be men's area of work.” (Gupta)

And a woman Indian participant added, “Women may be managers of the household, yet men too play an important role. Men may not pick up items from waste for reuse within household, but they know which items have resale value, which can get them additional money. In many households I have seen men dealing with the waste that is given to the waste collectors who come home and buy the resellable, reusable waste.” (Raghupathi)

Planning Tip 3: When attempting to characterise the waste stream, ask women and men of different social classes to do a 'waste walk-through' of their houses, identifying different types of wastes and their sources. Check whether they really do have specialised knowledge and also whether this knowledge entitles them to manage waste as they choose.

2.3 The waste stream is in transition

Changes in products and packages are very dynamic right now in developing countries, so that the problems associated with and the potential uses of new materials (such as plastic bottles) are not well understood, nor is there a consistent approach to handling them.

Example from the discussion: With the increasing 'modernisation' and 'westernisation' of developing countries new synthetic packaging materials are introduced in the consumer stream and therefore in the waste stream, like various types of plastics. In Cote d'Ivoire, previously used biodegradable wrapping (banana leaves) for certain goods is largely substituted by non-biodegradable plastic bags. “In some places [Cote d'Ivoire and Mauritania], all you can see for miles and miles, are fields of discarded plastic bags” (Burland).

Planning Tip 4: Investigate new packaging strategies for domestic or imported goods; ask women and men about the things they are buying and how the packaging is changing and how this affects the waste they generate and handle. Use participatory

tools to explore what materials were to be found in the waste stream 10-20 years previously and today.

Gender Factors in Analysing the Waste Management Baseline or Status Quo

The 'tips' in this chapter relate to the process of analysing the waste management status quo in a region, a neighbourhood, a city, an informal settlement, or an industrial area. In specific, we take the 'baseline' to include the current or status quo handling of waste, including formal and informal systems, problems such as illegal dumps or corners where litter accumulates; community and municipal organisational structures for collecting and disposing of waste; the manner in which wastes are required to be set out for collection outside of homes or businesses or in primary collection bins, street sweeping practice; and related questions.

2.4 Women and men know different things about community waste management

Women and men (and also children) are almost certain to have different (and not always overlapping) knowledge of waste disposal places in their neighbourhoods. They may also have differing knowledge about different kinds of wastes. On Szentendre Island, in Hungary, a separate-sex mapping exercise resulted in the maps drawn by the men's group showing more sites with scrap metal from abandoned cars, tires and farm-equipment and more sites with building and construction wastes while those drawn by women showed more dumping places for household wastes and missed some of the sites mapped by the men. In this case, children were the only ones who seemed to know ALL the dumping-places, although they could not always say what kind of waste was found there.

Gender analysis of the definitions of waste are useful in understanding the interface between personal and household management on the one hand and the community and public-sector cleansing activities, on the other. Knowing about gendered definitions of waste has a potentially large effect on the design of interventions for increasing source separation practice within the household or at the point of setout.

The implications for surveying waste generation quantities and composition and for projecting waste quantities and composition for a neighbourhood or city are profound.

Examples from the e-mail discussion:

One neighbourhood chief in Bamako, Mali invited men and women to a public meeting and a map was made showing the location of temporary waste disposal points, water taps and stormwater drains and roads and paths. When a few weeks later the Chief decided to call a meeting of women only to make the same map, some differences emerged. One temporary waste disposal point was purposely ignored by the women, who did not wish to be associated with it and blamed it on the market vendors who kept throwing garbage there, against the wishes of the leaders. The women also knew more roads and paths, including the ones to the school and the clinic. (Muller)

In Cote d'Ivoire, the idea of mapping was presented to a mixed group of men and women. Then, women went off in smaller groups to make their map and men did the same. By

bringing the small groups back together to compare maps and having a semi-structured forum where folks could discuss differences and similarities, the exercise helped to better situate intermediate trash depots. (Burland)

Planning Tip 5: Have women and men do separate-sex mapping exercises to identify waste dumps (legal or illegal) in their communities. This exercise is also useful in planning where to place intermediate or secondary collection points.

2.5 Women work for free, men work when there is pay involved

Participants offered this insight from widely differing regions in a remarkably consistent form. Across cultures, it appears that women 'have to' handle waste in their homes: it is part of the definition of who they are and what they do and may relate to their lower economic and social status. An important aspect of this is that women who are able to afford it may pass this responsibility to servants.

No one considers it strange or unfair that women do not get paid for this activity, even when these activities extend beyond the home to community cleaning. Men, on the other hand, tend only to handle waste when they are paid for it, or when it is specific to their activities.

The experience with community based activities tends to reinforce the insight that women may often be involved with waste management, community clean-ups, or even street sweeping, at a civic activity level. But when there is an opportunity to institutionalise the volunteer activities, it is overwhelmingly men who are selected for paid labour, even when NGO-intervention attempts to safeguard women's position. (Snel)

Examples from the e-mail discussion:

The discussion provided the example from Hyderabad (India), where after two years, an NGO supported scheme to hire community workers for garbage collection only succeeded in hiring one woman in one of the eight associations.

In Ouagadougou (Burkina Faso), the community organisation at first only employed men, arguing that garbage collection was a 'typical' man's job. It was only when the high turnover of male collectors began to diminish the effectiveness of the collection service that the CBO agreed to employ women. It turned out that women were very reliable employees. These women, from situations of extreme poverty, were bent on doing good work, as they saw this as their only job opportunity, given their lack of employment skills, (UWEP case study, 1998).

From the perspective of women in Burkina Faso, employment in waste collection outside their neighbourhood was a new venture. They were prepared to breach customary bans on mobility and risk public harassment by working in public places like streets, a typical male domain, because of unprecedented changes in their social-economic situation.

A different experience is reported from Dar es Salaam, where until 1998 six out of eight known waste CBOs were initiated and managed by women only. Although the management committee consisted of all women volunteers, they employed both women and men as wage labourers for the garbage collection work, out of social concern for women's necessity to earn income. It is a development strategy that combines both environmental and social objectives. (Muller, also WASTE ILO Mission)

In one little town in Costa Rica, traditionally the communal decisions have been taken mostly by men in charge of the CBO that executes infrastructure projects and men also manage the communal aqueduct. Women had participated only in church and school committees and until recently the waste management wasn't a theme of communal participation. It began to be a topic of interest because one of the teachers introduced it in the school. At present, this Committee does the separation and the commercialisation of the recyclable materials, the money collected is used for the benefit of the school, so the work this women do is voluntary, is gratis. This activity is well accepted by local men and women, there's no interest of men to participate in it.'(Ugalde and Rudin)

Another participant observed that in many Southeast Asian countries the women traditionally are responsible for the household waste and sweeping the streets and compound and take pride in keeping the environment clean and tidy. But as soon as any of these tasks become paying jobs, men are either targeted for the jobs for various reasons or end up dominating the structures and decision-making systems. The volunteer unpaid work of women at the household and community level ends up being on a lower status because it is taken for granted and not quantified. (Hayes)

In Karachi, Pakistan, women volunteers were selected from the 'same-lane' /streets to take care of the waste management and supervise the sweepers (men) and ensure that the accumulated waste is collected appropriately and timely. Women formed a community-based organisation entrusted with the task of collecting the funds and paying the sweepers. The community volunteers consist in great part of unmarried girls. It was remarked that they have more time for such voluntary activities than married women who have to look after husband, parents and children. That men could also engage in this involvement never seemed to be an option (because of the voluntary aspect?). (Gohar)

2.6 The issue of women's uncompensated work

Women may take responsibility for community cleanliness as long as the work is voluntary, but when it becomes paid and legitimised, it frequently, if not always goes to men. The implications of this include the need to deliberately preserve women's access to cleaning activities during modernisation, formalisation, or other processes that involve changing its status and upgrading its visibility.

Planning tip 6: Women's generalised 'gender' responsibility for community cleanliness means that they need to be consulted - probably in women-only groups - at all levels when improvement schemes are proposed or planned and both their insights and their status need to be protected.

2.7 Formalising waste activities can force women out

The planning implications of this are worth emphasising. Women who have initiated waste or recycling activities for altruistic or livelihood purposes are exceptionally likely to be forced out or marginalised when informal or voluntary activities become legitimised, formalised and the subject of employment or commercial contracts.

Women themselves may collaborate in this process, or concur with the overall result. Thus a well-meaning effort to strengthen a women-run project or enterprise may end up having the perverse effect of forcing women out of the project altogether, unless special measures are taken to protect their access to and control of the resources.

Planning tip 7: raise this topic in meetings and discussions when there is some kind of proposal to strengthen, formalise, or legitimise some activities in which women have a principal or leadership role. It is worth explaining the potential threat to groups of men, women and in mixed groups and when all of the stakeholders understand, try to get their ideas about special measures to safeguard women's interests and preserve their claims. Then ensure that these ideas are written into formal project documents and that the measures associated with them (including reserving work quotas or certain material streams for women) become institutionalised within the project itself.

2.8 Women are paid less than men and tend to work harder in more difficult conditions

Many participants suggested that when women are involved in waste activities as paid workers (as opposed to volunteering their time) they are among the lowest-paid. They work in the dirtiest and most dangerous conditions; they have no social or health insurance; and they may have to have their children work with them in these conditions. Their work is also likely to have lower social value and therefore be lower-paid (or vice versa: they may only have access to lower-paid work since they are seen as less capable or valuable than men; the causality is not clear).

“In India, we looked mainly at privately set-up small scale enterprises recycling paper, glass and plastic. The majority operate partially at least within the informal economy, ...and employ a varying number of people; usually men as long-term employees and many women and children as daily casual labourers for sorting purposes. Because they are casual workers, women and children have no insurance against accidents while working and make little use of protective clothing or other protective measures. In the glass recycling, the glass is not even washed until it has been sorted out. In these enterprises, there was no question of women being the entrepreneurs, only wage workers.”(Baud)

2.9 The household boundary is a gender boundary

The boundary between household and community is an important one, as it is at this point that discarded objects pass from the individual property of the household to becoming the community's waste stream. This boundary, also a gender boundary in relation to waste, often defines the limits of women's autonomy and control of waste materials.

"It is extremely interesting to see the gender division in terms of when waste is considered a social responsibility and when it becomes a technical one. The 'switch over' reflects some interesting underlining issues in terms of gender and waste management."(Zender)

A key milestone in the process of urbanisation or 'development' is creating systems to manage waste outside of the household, rather than within it (where it traditionally is handled by composting, burning, burying, feeding to animals, reusing, or the like). It then often becomes the responsibility of women to take the waste to that point at the boundary of the household. This point, which can be referred to as the 'point of set-out' is the point at which whatever has been defined as waste is placed outside of the household for handling by whomever or whatever institution is understood to be responsible for waste. It is at this point that ownership of the waste actually passes from the household to the community or city.

In Pakistan, wrote one participant, the city workers persistently complained that the waste was not properly set out. It turned out that in order to put the waste in its 'proper' place, the women would have had to violate traditional constraints on appearing outside of their household compound. Many solved this by burying the waste within their household compounds, or throwing it out the door, or sneaking out with it at night. The project solved the dilemma by hiring children already involved in waste to pick up the waste and take it to the designated point of set-out.(Gohar)

2.10 Community based enterprises span the gender boundary

Community based enterprises often operate on the boundary between a traditional or informal concern for the health and sanitation of the community, often a principal concern of women and the commercial world, usually the domain of men.

Community based enterprises comprise a range of small-scale activities which are largely informal, but which have links with more formal enterprises and local authorities. At one end of the spectrum, these enterprises resemble community based organisations (CBOs) with a great deal of volunteer input by the leaders, often women and with community leaders in a position to exercise co-ordination and control. At the other end, there are those enterprises, which adopt a business profile and seek markets for their products and services both within and outside their communities, in spite of their location within the community.

This second type of enterprise tends to engage in waste collection or recycling and opportunities for participation by women differ greatly, depending on the culture's attitude towards the idea of women working outside the home, as the e-mail discussion's participants acknowledged.

"Experience in Bangalore, India with one of the neighbourhoods called S., taught us to insist there should be equal participation of women in the core group (of the project). In one area, the core group consisted mainly of retired men who did not willingly participate in the door to door mobilisation process. For this reason, community participation in composting and door to door garbage collection remained extremely poor".

"In another area in S., the NGO had approached the community through a women's club, whose members turned up in large numbers in the initial mobilisation phase This was a business locality and although people were rich enough, there was resistance to pay the meagre amount of Rs10 per household per month to a waste collector. Here, men controlled money and as they perceived door to door collection as women's initiative, they did not take it seriously".

"Based on the above experiences we decided to mobilise both men and women in any neighbourhood solid waste management scheme as a policy matter.. "In another area where the person has mobilised both men and women, the core group is the most vibrant and innovative one." (Shah)

"In one neighbourhood in Abidjan a planner noticed a small group of women visiting one compound after another. He was told this was a women's brigade with the duty to inspect people's compounds on how they handled the household garbage. If things were not in order, the household was fined." (Muller)

2.11 Point of set-out is an important focus during programme planning

There were a number of contributions to the discussion which directed attention to the importance of point of set-out as a focus for social marketing and for planned introduction of behavioural change. In the first instance, the participants, as in the Pakistani example above, pointed out that a clear understanding of formal and informal social constraints is necessary before planning activities at the point of set-out. A woman who cannot leave her household compound can not easily or consistently deliver waste to a secondary collection point at the corner of her street or at the entrance to her barrio. Also, in urban settings, certain corners may 'belong' to social groups of men or even to gangs, making it impractical to use them as the focus of a waste management programme.

Planning tip 8: Before making a determination of how a collection system will operate and where to assign the point of set-out, perform a community transept which explores the limits of women's mobility and their access and control of the public or community spaces which will be important in the waste management system.

2.12 Restrictions on women's mobility may interfere with compliance with waste system requirements

Some of the participants pointed out that asymmetrical gender and power relations may make the point of set-out a difficult transition point, since the city or community (paid) waste collectors, as well as the City leadership, who are generally male, tend not to understand the interests and needs of women in relation to the collection of household waste. The insights from the discussion suggest that a gender-sensitive approach can increase the effectiveness and efficiency of most waste management systems.

For example, formal collectors or managers may complain because the waste is not set out properly, not taking into account that the women cannot really leave their homes to put it in its proper place (and not having consulted the women in the first place, when deciding where the point of set-out should be). Or the times for waste collection may not have been set with any attention to the schedules and responsibilities of the women who will bring the waste to be collected. Or the containers, which are appropriate for storage in the home, may not be acceptable to the collectors, etc.

At the beginning of a project in Recife, Pernambuco, Brazil, women wanted to participate. When it turned out to be a success regarding income generation and a better environment, men became interested in participating. Women in some locations were afraid men would take over and did not want their participation. But a division of labour between women and men and making clear the objectives of having both participating, seemed to have solved the problem. Men were given responsibilities in what they could do better, like carrying heavy loads. Women continue to do what they were good at: like separating solid waste in their homes. (Borba)

A Pakistani participant noted that when large waste management projects are designed and implemented without getting women's views, they are seldom sensitive to their needs. It is not surprising that the government projects would set-up dumping points so far away in spite of the fact that women are not allowed outside their homes and children cannot carry the waste to a far away dump. (Gohar)

Planning tip 9: A persistent failure of the public to comply with the requests or requirements of the waste collection system in terms of place of set-out and time of set-out, may well indicate a gender problem with the requirements themselves. It is useful to step back at this point and ask the women of the house what precisely is going on and what kinds of problems they have complying with the official collection scheme. If problems can be identified, these should be immediately communicated to the waste management operations unit, whether formal or informal, governmental or private, with a request to redesign the approach to collection to accommodate the constraints placed on women as well as their preferences.

2.13 Waste projects and related experience can empower women in their communities

This also points to one of the important ways in which waste management experience can work to clarify gender issues and, over the long term, to address gender inequities. In practical terms, working on community cleanliness is for many women their strongest positive experience working 'in the world'. It gives them a sense of their own effectiveness and power, in an area – waste – which they understand; often the experience can transfer into other areas of their lives. Thus although women may begin to work on waste issues because it is expected of them, there are important examples, both in the developed and developing worlds, of this becoming a springboard for either political activity or creating a commercial enterprise.

In Karachi, Pakistan, one participant ... “observed a very similar role from Karachi Administration Women Welfare Society (KAWWS). They operate in a higher middle income area and also act as an important link between the government institutions and the community in other infrastructure. For example they have supervised a local street paving, water supply etc. The results were very positive.” (Ali)

Planning tip 10: In the baseline analysis, work with women researchers to quantify and value women's uncompensated work in community maintenance, hygiene and public cleansing. Identify individual women and groups who are active in this area and invite them (repeatedly if necessary) to participate as stakeholders in the formal planning process. In women-only planning sessions, invite the women to envision for themselves a continuing role in the waste management system, including the possibility of earning their livelihood that way. Then in mixed planning sessions or meetings, raise the issues of women's participation and highlight their status as the most experienced stakeholders.

Community maintenance in terms of waste management may become a basis for encouraging women's increased participation in local governance and community leadership in other areas.

“The Self Employed Women's Association (SEWA), an NGO in Ahmedabad, India, has helped in organising women engaged in paper/rag picking and safeguarding their interests from the clutches of the paper contractors and middlemen. SEWA has helped these women in setting up their own 'godown' from where the collected waste paper is sold to the mills directly. SEWA's efforts have not only safeguarded these women from the drudgery and dangers of work but also have increased their income by eliminating the middleman. This has also improved the status of women by making them organised workers who sell paper/rag directly to the mills through its own cooperative.” (Raghupathi)

In Pune, India, the adult education department of SNDT Women's University has put considerable effort to help women waste pickers. In a programme called Garbage Recycling and Segregation Programme women waste pickers who collect segregated waste from households and commercial establishment have been given photo identify cards. This gives them recognition and status. The department that helps in this is a

part of the Pune Municipal Corporation. They are also provided protection from police harassment. In order to provide access to loan funds to women waste pickers, a saving scheme was started. It has groups, each group consisting of 10-12 women, who collect saving of Rs. 10-20 per week per member. This is deposited in a joint account in a Nationalised bank and after the period of six months it is used as a revolving loan fund by the group. (Raghupathi)

CHAPTER 3 GENDER, ECONOMICS AND FINANCES

3.1 Women as waste system clients and 'supervisors'

The household is, in many ways, the most important, as well as the smallest, economic unit in an urban environment. Urban services, as well as taxes, are based on the household as the primary unit of activity.

The discussion participants agreed with much of the gender and planning literature that women are most often the household managers and the ones who, within the household, are charged with managing the practical aspects of daily life: getting and preparing food, supplying water, assuring cleanliness and maintaining the physical spaces.

Given the widespread and well-acknowledged role that women play within the household, the lack of formal acknowledgement of the role of women as the primary clients of urban service systems is perhaps surprising.

Because of this, the e-mail discussion as a whole strongly indicates the importance of gender analysis in the formal planning process for waste management, recycling and other public services. Women, as household managers, represent the largest body of waste system clients. It might be possible to say, as well, that women in their community maintenance role play the part of system supervisors.

In terms of the formal planning process, gender analytic tools are important (and generally neglected) in any waste management or recycling diagnostic, assessment, or planning process. Specific tools mentioned in practice include community mapping and transects, separate-sex planning meetings and stakeholder analysis.

A participant who had worked in Karachi, Pakistan, points out: "I also agree that women are associated with the responsibility for cleanliness of the home and for the health of the family. They are the solid waste managers of the household. Our experiences with a pilot project on community based primary collection in Karachi, Pakistan show that they also take responsibility and special interest on the community level; that is, if they are aware of the health impact of inadequate waste management and see or are informed about possible alternatives." (Zurbruegg)

Planning tip 11: The unexplored policy implications of women's role as household managers include the need to consult women when service levels are established or altered; the need to explicitly include both women and men in participatory and consultative processes and the usefulness of consulting women when surveying waste quantities or seeking to identify materials for source separation and recovery.

3.2 Willingness and ability to pay and service preferences: critical gender issues

Participants in the discussion touched briefly on the question of women's service preferences and willingness and ability to pay, subjects, which join the list of research priorities.

The point of departure here is that different cultures and societies assign the obligation to pay the bills for public services differently. In European cultures, it tends to be assigned to men or to men and women jointly; in Central America, specifically Honduras, it appears to fall together with the household responsibilities, which are assigned to women, and women have to pay out of their household budgets. The way the culture assigns this obligation is both an empirical question and a very important piece of information when planning waste (and water and other public service) systems.

The fact that men tend to be more vocal and active in choosing service levels and development goals creates problems in situations where women find themselves responsible for paying for a service level they consider inappropriate. In Choluteca, Honduras, this was true of waste collection: the women had to pay out of their household budgets, but felt that they were paying too much for too high a level of service. A number attempted to disconnect from the collection service altogether, because no lower-cost level of service was offered. In Central and Eastern Europe, as the transition from communism deepens poverty and decreases household income at the same time that it puts more pressure on public service cost recovery, households opt out of public services any way they can, sometimes creating health hazards.

A participant from Pakistan observed that since women do not have their own income to pay for the service they rely on the men to give them extra money to pay the children or they save from the already meagre household budget available to them if at all. For this reason, men are in control of what services the family can have access to. (Gohar)

“An example from Bamako, Mali, illustrates the intra-household mechanisms of paying for garbage collection (told by a wise, old man in Bamako). Suppose the husband decides that the household should pay for garbage collection. Then there are several possibilities:

He pays for it himself.

He may tell his wife that she should pay from her own income e.g. from market trading.

He may tell his wife to pay, even if she has no independent source of income.

Another possibility is that the wife pays from her own income, although the husband has not given approval (in that case she is not only able to earn income, she also has the right to control expenditure).

In this way intra-household gender relations may affect willingness to pay for a public garbage collection service.” (Muller)

Planning tip 12: First, consider the possibility that involving both women and men in choosing the appropriate level of public services may be a key to cost recovery for those services. That is, this can no longer be considered a purely technical decision for system engineers.

Second, be careful to involve women directly and personally in planning levels of service. In some cases a lower level of service (for example, collection from secondary collection sites in a community, rather than from households) may be a more sustainable option, even though it appears less 'modern' or 'prestigious' in the eyes of the government officials.

3.3 Women manage money differently than men

One of the central insights from the last 15 years of micro-lending programmes on the model of Mohammed Younas's Grameen Bank is that women manage money differently than men. While men consider money to belong to them personally, women tend to see money as belonging to the family. There is considerable evidence that women manage money more responsibly, especially in societies where the level of drinking, gambling and the like are high.

Specifically, women manage to pay more bills even when they have less money. This is related to ability to pay, as well as to willingness to pay. Second, women may have a higher willingness to pay for services which relate to family health. In several Honduras barrio planning sessions, it became clear that when there was a choice between investing in roads and investing in waste systems, the women opted for the waste systems and the men for the roads so that they could operate cars with less damage.

“A survey of 9702 recipients of mortgage loans from the National Housing Trust in Jamaica, 38% of whom were women, found that despite disproportionately high unemployment rates and relatively low remuneration rates among the women, they were less likely than the men to be in arrears on repayments.” (Caroline O. N. Moser, Gender and Third World Development, Training Module 4: Towards gender-aware housing policy and practice, IDS, Sussex, n.d.)

Similarly, a housing project in Nairobi observed that women household heads were more consistent in repaying their housing loans than men, being conscious of the value of a rare opportunity to achieve house ownership.

3.4 Ability and willingness to pay have important gender components

This means that calculations about ability to pay can not simply be based on objective data about household income level; they must also include an analysis of who controls the cash resource and how this is allocated. In certain cases, for example, women-headed households, even though their household income is lower, are able to maintain better payment levels for services and have also shown higher payback rates for micro-lending. (Younas 1999)

Planning tip 13: In practical terms, this may mean that credit-worthiness and ability to pay may need to be assessed differently depending on the composition of the household. A woman-headed household at a significantly lower income level may nevertheless be a more reliable system client. Assessments and analysis should in all cases record the household structure and composition, in addition to its income level.

A quite different area relates to the need for project funders and planners to understand why gender analysis is important in waste projects, when it may appear that the connection is weak or irrelevant. As the staff of development projects increasingly recognises the role of the 'beneficiaries' in decision-making, the role of women clients needs to receive additional recognition.

3.5 Women's enterprises operate at a disadvantage

Participants noted that women have limited control of resources and also more limited ability to mobilise economic resources, than men in equivalent social positions.

In a micro-lending programme in a Honduras squatter settlement which paid for building toilets, sinks and sewer connections, the programme manager noted that not only were household income levels in women-headed households lower, but that women in these situations often had to pay for labour. In men-headed households, the men appeared to have a much greater ability to mobilise brothers, cousins, etc. to do the actual work, so there was less need for cash outlay to pay for installation.

This lower level of family support tends to affect women entrepreneurs negatively. When women seek to move from waste picking or scavenging to the status of micro-entrepreneurs, their access to credit and family support tends to be less than that of the men, so they are more likely to be handicapped from the start.

One participant from Ghana offers the following: "these [waste enterprises] are mostly owned by men, with very few owned by women. The women started with loans from friend or family. The men also start with similar loans except that they could get bigger sums of money because they are considered to have better collateral. Therefore they deal in the sort of waste that gives quick and big returns on investments." (Nibi)

"In the bottles trade in Ghana, you will find women dealing with sales for reuse. Obviously their incomes aren't big and their expansion of operations is limited by several factors. Lack of financial support, no major industries to buy from them (lack of appropriate markets) and the women also lack the managerial skills due to low education if any at all. On technology, the women have little access to technology because they are limited to only recovering of the material that can still be used or to retail and warehousing." (Nibi)

"In Hyderabad, India, men earn nearly twice as much as women in [the recycling] sector. Women earn between Rs. 18-40 per day while men earn Rs. 40-70; In glass; women earn Rs. 20 while men earn Rs. 30 (child Rs. 15) per day; and in plastics women earn Rs. 25-30 and men Rs. 35-40 per day. The logic behind the price difference is due to men doing 'hard' labour, namely carrying the waste while women get less for sorting out the waste." (Snel)

3.6 Women's enterprises may have limited access to or control of waste resources

In recycling or recovery micro-enterprises, women's activity is more likely to be associated with certain materials, like textiles and plastics and less likely in relation to metals, building materials and things requiring strength, technical knowledge, or capital investment.

In the cases where women are successful entrepreneurs or enterprise leaders, their position has often been deliberately strengthened by the participation of NGOs or CBOs in project initiation or expansion.

In spite of this, participants cited several examples of enterprises where women are paid and in some cases the explicit gender tensions between men and women workers in micro-enterprises and co-operatives have been resolved by taking advantage of the respective strengths of women and men. This has occurred in Costa Rica, as well as in Recife, Brazil.

Planning tip 14: in feasibility studies, analyse carefully the separate roles and status of women and men, as clients or as micro-entrepreneurs. Build into programmes a component to support women and to help them to preserve and/or strengthen their access to and control of resources, including especially credit, labour and materials

3.7 Some materials are gendered, so women may not have access to the highest-value items

Schemes to fund or formalise women's activities need to investigate which materials are considered suitable for women to handle and which ones are reserved for men's activities.

Women tend not to be permitted access to higher-value materials like metals or paper, but to focus on textiles, plastics and the like. In some societies the materials themselves appear to be gendered: in Honduras, metals were reserved for boys and men, while women worked on lower-value glass, plastic and textiles. In general, materials relating to vehicles – automobiles, motorcycles, bicycles, animal carts – appear to be more likely to be recovered by men.

One of the interesting aspects of compost is that because it is not usually already being recovered, it may be considered 'neutral' and provide substantial opportunities for women entrepreneurs.

3.8 Asymmetrical power relations affect marketing ability

There is a link to the strategic gender interests of women working in waste and recovery activities, in terms of the potential to counteract or ultimately alter the asymmetrical power relationships between women collectors and sorters of waste and recyclable materials and men municipal authorities, competitors, purchasers of recycled materials (from women), or even men employees (of women entrepreneurs).

A frequent observation by those working on separation at source, recovery and recycling is that while women often work in these areas and are particularly likely to be sorting and classifying materials, their unequal status and limited ability and experience to operate outside the home mean that they have little marketing leverage and are forced to sell at very low prices.

CHAPTER 4 GENDER, COMMUNITY AND WASTE MANAGEMENT

A better understanding of the interrelations between gender and community organisation will assist in strengthening the voice and the contribution of women in waste management. Social class and case are also related factors.

The term 'community' denotes the distinctive space between household and the public sector where waste management is neither the full responsibility of individual households nor of the municipal waste department. Community denotes neighbourhood spaces like streets, public areas and locations for waste facilities such as disposal sites/containers. In the community, citizens are responsible for waste management. Their social responsibility is to be promoted and motivated by influential community members, who approach the residents through informal groups, committees, community based organisations and NGOs. In many neighbourhoods citizens take responsibility to complement the official services.

4.1 Women's household responsibility extends to community cleanliness

Participants from all areas of the world shared a general observation that women are responsible for cleanliness and hygiene within the home and that this responsibility extends to the areas around the home, compound, neighbourhood, etc. This is the case in spite of the fact that social norms or permission of husband (or partner, father, son, etc.) may not normally allow women outside their homes which in turn may make it difficult for them to carry out this responsibility adequately. Participants pointed out, for example, that the point of set-out and collection is important, as this requires that women cross the boundary between house and neighbourhood space and interact with the outside world as represented by formal or informal waste collectors.

4.2 Men want to approve or influence the activities open to 'their own' women

Since women's activities outside the home are limited or prohibited by social rules and the preferences of their husband or other male relatives, women's options to engage in waste business or be active as community caretakers are constrained. One of the UWEP case studies, for example, observed that family quarrels erupted in Ouagadougou (Burkina Faso) when women spent time on community waste affairs or earned money with waste collection. This tension within households because of women taking active responsibility for the living conditions in the community is reported from many cities (e.g. Marie Dominique de Suremain, Lucy Cardona, Marisol Dalmazzo, Women and the Urban Crisis; or the invisible management of housing and services. ENDA America Latina, A.V.P. Asociacion para la Vivienda Popular, CEHAP. Centro de Estudios del Habitat Popular, Colombia, 1995)

Example from the discussion: in Peshawar, Pakistan, men leaders had to be convinced of the benefit of the project and its 'safety' for their wives. Once they could see these things, they were much more willing to countenance the women's involvement and even supported it.

Planning tip 15: First speak with the formal leaders, likely men, to a) let them know what is happening (so they won't be nervous); b) to help them understand, in their own terms, why it is necessary to consult women and c) to get their advice on HOW to consult women without violating cultural constraints.

4.3 Women are active on different community levels

It has been observed everywhere that women participate most actively in organisations on the level of streets or small neighbourhoods. Their participation in higher level organisations and committees, which are representing the whole community, is less obvious and often special measures are taken to ensure that women are also well-represented on community-wide committees. The same can be said about the participation and representation of the weaker socio-economic groups (caste and class), especially when they occupy certain locations in the neighbourhood.

Gender is therefore a factor in community decision making, since the composition of committees and the procedure for selecting representatives to higher level committees has a great influence on whether women's interests are voiced and taken account of on the appropriate level.

A community in Kampala, Uganda, for example, had great problems with undrained storm water. An urban development project discussed the alternatives only with the highest level community committee. These community leaders were given the choice between two types of drainage system: a sophisticated one, which would take three years before being operational; or a simple one, to be operational before the next rain season. This highest community committee choose the sophisticated one, while the women, who were not represented on that high level, would have preferred the system that would provide immediate environmental improvement. When women were also asked to work voluntarily on the drainage canals, while paid labour was offered to men, the women refused (and the project failed).

Planning tip16: Public gatherings and committee meetings are often the means of consulting the community about the people's wishes. To get a full-range picture of the demands and preferences of the community, arrange for a series of discussions on all community levels and ensure that the interests of women and social minorities are voiced on each level. Arrange that their preferences are given a place in the overall waste management plan.

4.4 Environmental monitoring an appropriate task for women

Local authorities may arrange for community-based monitoring and feedback on their services, in order to ensure that waste collection is carried out effectively and satisfies customers' expectations. The community leaders may organise for environmental monitoring by allocating the task of daily supervision to the smallest neighbourhood units.

Women residents are often assigned this task, sometimes forming a team with school children or men residents. In Ghousia Colony, in Karachi, Pakistan, for example, women lane managers

supervise the municipal sweepers in their lanes and pay them extra money for satisfactory work. Or, in Cebu City, Philippines, neighbourhood teams of women and men supervise general waste behaviour and in particular whether households set out their garbage in the correct manner for collection. According to e-mail discussion participants, in Abidjan, Ivory Coast, women's brigades walk daily rounds and enter people's compounds to check on proper waste behaviour.

Planning tip 17: When the community is to take responsibility for monitoring waste behaviour by residents and waste collectors, the community will first develop consensus on appropriate standards and indicators of waste behaviour and then decide and announce publicly which women and men are assigned the task of supervision.

4.5 Women from higher social classes assign waste responsibility to servants

It also appears that social class is an important determinant of women's activity in community enterprises: it is mostly middle- and upper-class women who are active in the NGO sector and in terms of community projects relating to waste and recycling.

In terms of household performance, source separation, ability to set things out, the presence or absence of domestic servants in the culture makes a big difference. This appears to be a major area for additional investigation.

The choice to be active on a community level in waste- and recycling-related activities may be motivated by second-level effects of waste accumulation and inadequate management. The community conflicts that arise when waste is poorly managed can have serious consequences, resulting in intra-community hostility and even violence, so community attention to waste may actually be focused on restoring social harmony, as much as on improving health.

“Within households in India, women are the main managers. But, I think we should also recognise that particularly in middle-class and upper-class households who presumably are large waste producers, there is also a group of (women) servants who implement waste management in the household and may obtain a subsidiary income from such waste (at least in India).” (Baud)

4.6 Women in positions of responsibility have different preferences

Because of their status as household managers and their greater familiarity with the practicalities of (solid and human bodily) waste, women in positions of authority in community or city government may often exhibit different preferences for waste management strategies than their men counterparts. Some of the participants who are consultants noted that women city managers, mayors, or council-persons are often more interested in recycling and separation at source and understand better what its consequences are, whereas men in these positions tend to imagine that it involves (their wives) actually shuffling through the garbage.

CHAPTER 5 TROUBLE-SHOOTING WITH GENDER ANALYSIS: RED FLAGS INDICATING A POSSIBLE GENDER PROBLEM

Following is a brief list of the kinds of programme and project problems, which may indicate a need for gender analysis of the situation and a gender-sensitive approach to solving it.

Symptom	Diagnosis and suggested approach
waste quantity estimates prove too low – there is more waste than predicted	The activities of the informal sector may not have been recorded and changes may have disrupted their functioning. Suggested approach is to use a broader definition of stakeholder and to solicit input from more parties, including women and men workers in the informal sector.
waste quantity estimates prove too high – there is less waste than predicted	Information may have been collected from one sex – probably men – when women have more accurate information
waste is improperly prepared	Check who the information has been delivered to: it may be that one sex has received it but the other sex is expected to do the work
waste is set out at the wrong times	First, check again on information delivery. Second, ask women and men about their schedules. It may be that the collection schedule conflicts with key personal or professional activities, preventing cooperation even when people want to comply
waste is set out in the wrong places	The designated set-out sites may be culturally inappropriate in general, or inappropriate for the gender or class who set out the waste
source separation protocols are not observed	Those involved in handling waste at home – mainly women – may not have been consulted about their habits and preferences. More likely, they have been involved in the process of analysing how and at what point in the disposal process to introduce a separation step. The suggested approach is to invite women in small groups to analyse the situation and suggest changes that come from them, not from outside.
litter baskets are not used and there is a concentration of litter in unwanted places	The community has perhaps not been consulted about their ideas for the kind of litter baskets to use, where to place litter baskets, how to service them and how to publicise them. Consult groups of children, especially teenagers, women and men about their ideas.
there is illegal dumping of a specific material or materials	There may be no 'legal' or right option for dumping this material. Before introducing any kind of punitive approach, analyse the generation patterns for this material and identify the principal stakeholders who are responsible for generating and disposing of it. Then work with this group first to create a legal 'disposal opportunity' and/or 'recycling opportunity', combined with a gradual phase-in of strict enforcement and high fines.
there is illegal dumping of unspecified materials	Again, it is likely that the legal option is either too expensive, too inconvenient, inappropriate to the community, or otherwise indicative of something created without participation of the stakeholders. Suggested approach, as above, is first to analyse the generation patterns and especially whether the waste is 'gendered' or linked to some particular social or ethnic group and then to work first to create a legal 'disposal opportunity' or 'recycling opportunity', combined with a gradual phase-in of strict enforcement and high fines.
there are low payment rates for waste services, combined with official or unofficial attempts to 'opt out' of the waste system	Explore the dynamics of level of service, willingness to pay and ability to pay to see if there is a gender problem with the decisionmaking process that produced the current system. If so, begin with single-sex groups to sort out service preferences and willingness to pay.
low payment rates for waste services, combined with continued illegal disposal	The information and education campaigns (iecs) in all probability do not address the priorities in waste management of the men and women residents. It is suggested to discuss the priorities of residents in small neighbourhood clusters and let this determine the flow of these campaigns. Mobilise influential women and men to organise waste management through the channels most likely to reach different groups of women, men and children

CHAPTER 6 AGENDA FOR RESEARCH AND PROJECT DEVELOPMENT

6.1 Only a beginning

We believe that the Gender and Waste Email Discussion represents only a beginning in the exploration of the ways in which these two topics interact in the field, in the household compound, at the dump, in the parliament and in the conference rooms of the many embassies around the world where the increasingly decentralised decisions are made which affect many people's lives. In this chapter, a start is made on identifying the dimensions of an agenda for research and project development which will take these insights to their next level. The readers of this report are invited to formulate their own questions as well and we would be appreciative if they were communicated to WASTE via e-mail or post.

We also invite the community of interested and involved practitioners, scholars and officials from the South, East and North to identify themselves to us, so that you can join us on the next occasion for sharing – be it an e-mail discussion, a seminar, a study tour, or whatever.

6.2 Point of departure

We offer as our point of departure for this research agenda the following summary insights about the conjunction of waste management and gender analysis and practice:

There is a need for contact and communication between people working in these two fields together and separately, both because it is fruitful and because there is a substantive connection through the role of women in most cultures as household managers. The channels of communication between scholars and practitioners are limited, but generally open. The group that appears to be largely absent from the discourse are the activists.

The body of work in gender and waste is not large. While certain individual projects have integrated gender and waste, there is not a ready source of information nor well-known resource documents. In the case of policy and planning, even the basic questions have not been well articulated. There is a continuing need for analysis, for new theory and the elaboration of insights into intra-household economic relationships, service and logistics preferences, willingness to pay, location for primary and secondary collection points, final disposal, separation protocols and related factors.

There is a better understanding of the gender issues affecting women waste workers and much of the existing work has been in this area, with a focus on the **welfare** of the workers. There is not much work in the other gender focus areas of **efficiency** or **equity**.

In this area, the main need for additional work would appear to be focused on using gender tools to improve the environmental, social and economic performance of waste handling systems, rather than specifically for the purpose of benefiting individuals or groups of women. This suggests that a follow-up activity might include a gender component in waste planning

processes, and/or the addition of gender information to manuals, technical documents and the like.

6.3 Two primary dimensions for future work

The e-mail discussion reinforced the hypothesis, articulated in the proposal of the Urban Waste Expertise Programme (UWEP) that financed the discussion, that there are two primary dimensions of future research and its practical results in relation to programmes and planning. These are:

- the practical gender needs (and to a certain extent the strategic gender interests) of women working in waste management, as informal waste pickers, entrepreneurs, labourers and the like: how to institutionalise and legitimise better working conditions, fairer conditions of access and control of materials, more complete social and occupational protections, better access to credit; and
- the interactions between gender and community level and public-sector decision-making in the waste area: how to recognise and strengthen the voices of women in selecting service levels and payment plans; how to improve the performance of urban environmental services by recognising women in their roles as household managers as the most critical and central clients of these systems; and how to increase interest in community-wide environmental cleanliness.

6.3.1 Research areas

1. Women working in waste-related areas

- Gendered materials:
with what materials and technologies have women succeeded as entrepreneurs? Are there special materials, which are reserved to or constrained from women waste pickers and entrepreneurs? What kinds of cultural or economic justification are given for these reservations, restrictions or limitations? Under what conditions does the 'gender' of a material change? If the market for a material suddenly improves through the introduction of policy and technology, does women's access change as well; does waste-related work have the potential to elevate women and their families out of extreme poverty into a stable working- or lower-class status? Does the association with waste materials carry a particular social stigma and how has this successfully been counteracted?
- Waste work and social and economic status:
In what situations does women's commercial or institutional success lead to disempowerment and what strategies have prevented this from happening? With what forms of organisations or commercial activities have women achieved the most sustainable successes? What is the role of male family members in women's commercial successes or failures? What ways of involving male family members appear to be the most productive?

- Working conditions and health:
In what situations do women suffer particularly from the occupational health threats to waste workers? Are women more or less likely to have protective clothing, shoes and gloves? How does the perception of women in various cultures play out in terms of their occupational exposures in waste-related work and specific substances? What kinds of justifications are used to relegate women to the dirtiest work and the most hazardous working conditions and what kinds of instruments and strategies have successfully intervened? What kinds of approaches have women themselves taken to improve their status or working conditions and can these be replicated? What specific forms of health or occupational protection are necessary for women and how have women made use of them?
2. *Women as household managers*
- Women as household managers:
Do women always function as household managers? How does this relate to waste management in households? Do women have complete control of the waste resource, or only occasional or contingent access? Where is the boundary between household and community or city? In what ways are women constrained from crossing this boundary and how does it affect their abilities to reach and manage the point of set-out? What ways have women invented for themselves to solve problems at point of set-out? How do women and men manage waste within their household compounds (by animal feeding, burning, composting, etc) and what are the environmental effects/benefits of these strategies? Are they worth replicating or recognising and institutionalising? What special health risks attach to women and men when they are the household waste managers?
 - Women as household representatives:
In what situations has women's role as household managers been recognised and acknowledged and how has this affected their status and the effectiveness of waste systems? What lessons can be learned from this and are they replicable; what things can women tell about their household waste practices that men cannot? Are women as household managers better positioned to sponsor changes in waste-related behaviour? What is the role of children within the household in relation to waste and how can children participate in representing the household?
 - Women and servants:
What is the role of servants in wealthier or higher-class households? How does their position expose them to hazards or offer them opportunities? In this situation are they taking on some of the functions of household managers? What kinds of relationships to servants have to the informal waste collection sector and how do these affect the economic position of the servants? Are there precedents for servants organising themselves into waste entrepreneurs? How generally do servants relate to waste materials and what lessons can be learned?

3. *Women as community caretakers*

- Women as community caretakers:
What examples are there of women taking a major role in community management and how do they themselves see this as relating to their role as household managers? What examples are there of women taking leadership roles as community caretakers and, through these activities, finding themselves empowered to participate in new ways in political, social, or commercial life?
- What conditions – in the household, the neighbourhood, the community – are conducive to women exercising leadership roles in the community?
- What is lost when women fail to exercise leadership?

4. *Women as clients of urban services*

- Women as household representatives:
Are women household managers consulted in community and political processes for choosing public service levels? How have women organised themselves to impact these decisions and what lessons can be learned? Which services are the most critical and what strategies have elevated women's levels of involvement and their ability to control outcomes? What strategies should public officials use to ensure women's participation and ability to influence outcomes? What happens when women's ideas are really different from men's? In what cases have women's ideas made a measurable difference in approaches, decisions, or outcomes and what can be learned from these cases? In what cases have women's preferences been ignored and what has been the result?
- Women as bill-payers:
How do payment rates for public services correlate with whether households are headed by women or men? Have the hypotheses about women's handling of money be empirically verified in any specific cases and can they be in future research? Do women have different willingness to pay than men and how is this expressed? How has a failure to recognise women's role as household managers caused programme or project failure or near-failure? How has an explicit gender analytic focus improved the performance of public services, what strategies were used and what lessons can be learned?

5. *Women public and elected officials*

- Women as a progressive force:
What is the role between women public officials and experimentation with new forms of waste management, urban services, or recycling? Is it true that women in positions of power take different kinds of decisions and can this be documented? Can a connection be made between women in power and certain types of innovation? What happens to innovations initiated by women officials when men take over? Do women have a generally progressive effect on the type and effectiveness of urban services? Does having a woman in a position of official power affect the strategic gender interests of women public service clients?

ANNEXES

Annex 1 List of discussion participants and contact points

Following is a list of the 30 officially recognised core discussants:

Please note: Email addresses may have changed and are not updated here.

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Annex 2 References

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