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Editorial

Waste, poverty and recycling

Environmental hazards as a consequence of mass consumption and waste disposal remain largely unconsidered in affluent societies. Resources embodied in waste are not recognized. In Latin America, Asia and Africa, in particular, an extensive informal sector is involved in the collecting and separating of recyclable materials. This widespread activity provides an insight into the resourcefulness of those involved in the collection, separation and commercialization of recyclables from the waste stream. Nevertheless, recyclers represent one of the most widely excluded, impoverished and disempowered segments of society.

A new model of inclusive waste management, a radical approach capable of tackling poverty and contributing towards recovering environmental health should be established. Research results and community outreach experiences from the past five years have helped shape a definition for Participatory Sustainable Waste Management (PSWM), which has emerged as an alternative to conventional waste management. PSWM is defined as: "Solid waste recovery, reuse and recycling practices with organized and empowered recycling co-ops supported with public policies, embedded in solidarity economy and targeting social equity and environmental sustainability". The concept combines social and environmental issues by addressing livelihood concerns, such as the generation of employment, increased income generation, improved occupational health, among others; and of course, the promotion of human development opportunities and environmental health in general. Inclusive waste management also endorses this definition and further underlines the co-management aspect of these innovative waste management approaches.

Three theoretical pillars

The discussion on inclusive waste management is based on a theoretical framework which has three pillars:

- (a) *governance and deliberative democracy*, offering new forms of public–private partnerships and redefining the role of government, addressing the political and social contexts in waste management;
- (b) *social and solidarity economy*, focusing on collective over individual objectives and outcomes and proposing a ground-breaking model for economic development;
- (c) *co-management*, highlighting the participation of different stakeholders in resource management decision-making.

The synthesis derived from this overlay of theories contributes towards answering the following questions: can resource recovery become the driving force for responsible consumption? How can

we guarantee access of recyclers to these resources? Which appropriate strategies should be implemented to support local, social recycling enterprises and guarantee greater autonomy from the global economy? Are there any other pre-requisites for inclusive, participatory waste management, besides responsive governments and organized recycling initiatives?

Governance and deliberative democracy in PSWM

Governing has been defined by Kooiman as "the totality of interactions in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for the governing interactions; and establishing a normative foundation for all those activities" (2003). Governance is involved mainly in steering societies and organizations, placing particular emphasis on how decisions are made. Input from networks and community is crucial to good governance. Networks comprise a wide variety of actors, including government and non-governmental organizations.

The notion of deliberative democracy stems from critical theory and political ecology. It envisions a different form of democracy, where inclusiveness, reflexivity, social learning and power redistribution are pivotal (Rosenberg, 2007).

True public participation in policy-making is more than just consultation. It requires transparent democratic processes, to ensure deliberation and ample representation of the different stakeholders. Participants are empowered and perceive their stake in the decisions to be made. When people are part of a deliberation process, there is a sense of ownership and agreed results have higher potential for validation and acceptability.

Social and solidarity economy: a fresh eye on economics

Social and solidarity economy bring social justice issues and values, such as cooperation, redistribution and reciprocity, into the economy (Fisher and Ponniah, 2003). This form of doing business creates synergies between actors (local authorities, private enterprises and the state, citizens), generates workplaces by offering new services and new forms of production, and alters consumer behaviours towards ethical and 'greener' consumption.

Social economy is considered an innovative form of tackling poverty and exclusion – an alternative to conventional bureaucratic and economic approaches, which have been unable to resolve the situation of the poor. This approach involves institutional innovation, implying new governance arrangements and decision-making mechanisms, as well as having an innovative understanding of economy as activity with primarily social purposes, respecting environmental sustainability.

Cooperatives as well as community, neighbourhood and interest associations are essential players in social and solidarity practices (Portes and Moreira, 2004). Innovative ways of producing and doing business are arising in many locations in Brazil and in other parts of the world. In Brazil a 'parallel' economy has advanced significantly under the government of President Lula. The government has implemented significant institutional changes with the creation of a national secretariat (*Secretaria Nacional de Economia Solidária*) and a national council for solidarity economy (*Conselho Nacional de Economia Solidária*), in charge of fostering these new developments. There is also the national forum for solidarity economy (*Fórum Nacional de Economia Solidária*), which promotes cooperation and information dissemination on a national level.

Exploring participatory approaches in resource management

Co-management is defined by the sharing of responsibilities between government agencies and users or stakeholders for the well-being of the resource – for example to prevent overexploitation and to regulate fair access. "Co-governance in its varying appearance may be an answer, a reaction to or an expression of what [the author sees] ... as a major societal development, the tendency towards growing societal interdependence and inter-penetration. ... Co-governance means utilizing organized forms of interactions for governing purposes" (Kooiman, 2003). Collaboration and cooperation are basic principles of shared resource management. As highlighted previously, collaborative networks are emerging, particularly in the context of economic solidarity.

A social movement of co-op recycling in Brazil: a paradigmatic case study

An interesting experience is provided by the organized recyclers' movement in Brazil. The movement was officially created in 2001 during the 1st National Recyclers' Congress in Brasilia, with the participation of more than 1700 recyclers from all over Brazil. The "Brasilia document" expresses the needs of the people who make a living from recovering recyclables. The first Latin American Congress of recyclers was held in Caxias do Sul, in the province of Rio Grande do Sul, where the "Caxias document" was produced; disseminating the conditions of recyclers in different countries in Latin America. Since then the Brazilian movement has gone on to gain momentum through strengthening of regional networks.

In 2006 another demonstration in Brasilia increased pressure on the federal government to generate employment through recycling. The Government subsequently affirmed its intention to generate nationwide 40,000 new jobs in resource recovery in associations and co-ops. Improvement of recyclers' livelihoods is the priority task on the movement's agenda. The struggle is for a better life and for the right to carry out a dignified and honest work.

In the metropolitan region of São Paulo many of the recyclers are organized in associations or cooperatives. These groups are not necessarily able to provide higher incomes to the recyclers, particularly during the initial phase of their existence. It is for the collective and solidarity experience that members, particularly women, are attracted to the cooperative model. Shared work conditions also provide greater work flexibility.

Several hurdles still have to be overcome. For example, government support is still not consistent and delays are often incurred in paying recyclers. Research on co-op recycling demonstrates several pivotal lessons learned over the past years:

- Government support is crucial to the recyclers, since they have no capital to invest in infrastructure and capacity building. Co-

op recycling should not be treated as a separate program, but rather be integrated into the municipal solid waste program. Government recognition and commitment are essential.

- Co-ops need to work in autonomy, allowing them to adjust to prevailing local conditions and specific municipal waste management frameworks.
- Taking topography into consideration is decisive for pushcart-driven waste collection, therefore dividing the area into water catchments works well.
- Professional relations need to gear the relationship between recycling groups and the municipality. Paternalistic approaches maintain or create dependency.
- A social assistance approach needs to focus on empowerment of the recycling groups and on strengthening their autonomy.
- Recovering the dignity and citizenship of recyclers needs to become a public responsibility. Overall, there are many social, environmental, and economic gains for the municipality from the collection and separation of recyclables; these benefits need to be fully recognized and valued.
- A network of recycling social enterprises needs to be in place, together with adequate policies, protecting the sector against market and price fluctuations.

The above outlined lessons learned have been crucial in the design of a new model for waste management.

Ending poverty and recovering environmental health with inclusive waste management

As pointed out earlier, the prevailing view of waste and waste recovery has to be changed. There needs to be a paradigm shift from treating our waste carelessly towards viewing it as a resource. This also implies a shift towards recognizing recyclers as environmental service providers, instead of perceiving them as a nuisance and treating them with aversion. Empowering informal recyclers through capacity building, information and participation enables social inclusion. It dignifies the people who work with resource recovery.

Although considerable attention has been paid in literature to the organization of informal recycling into cooperatives and community-based programs, the prevailing attitude of local governments remains to exclude this activity from the recovery process. Authorities view this sector with suspicion and often refuse to admit the role they can play. Recyclers are viewed largely as a social problem and are subjected to prejudice and humiliation when carrying out their work in the streets.

The possibility to address social and environmental predicaments with resource recovery is still widely dismissed, despite the fact that organized recycling cooperatives can render numerous services to cities; such as street sweeping, environmental education/awareness, supporting other local initiatives, in addition to door-to-door selective collection of recyclables and organic household waste. Particularly in low-income neighbourhoods lacking basic public services, they contribute significantly to maintaining the urban environment by collecting what would otherwise contaminate roads, parks, beaches, rivers and other public spaces.

The most important aspect, however, is the possibility of generating and redistributing income among the urban poor. Co-op recycling embodies the possibility to recover citizenship, contributing towards social development, which generates employment and enhances quality of life of the local community.

Organized selective collection, based on autonomy and solidarity, represents a viable entry point for excluded members of society into a dignified life with fair livelihood conditions. Not only do we have an opportunity to tackle social and environmental problems

with this activity but we also have an obligation to revert the picture of wasting resources, lives and environments. By means of capacity building in safe work practices, administration skills, cooperativism and environmental education the recyclers will be in a position to perform different facets of services related to resource recovery, from collecting, separating and transforming recyclables, to educating the population on how to separate materials most efficiently. Over time these services can be adjusted to new emerging social, environmental and economic constellations related to consumption, recycling and reuse. Accordingly, should recycling one day no longer be required due to the identification of increasingly sustainable means of dealing with waste, the category of the recyclers will by then have adjusted to new social and environmental service functions. Finally, progressive public policies in waste management should focus on the following aspects (Gutberlet, 2008):

- *Inclusion*: formatting inclusive waste management programs with organized recycling groups (co-ops, associations, etc.) and facilitating their articulation.
- *Equity*: guaranteeing fair pay and social benefits for the service of resource recovery and assuring gender equity.
- *Eco-health*: addressing all levels of health, from protection of workers' health to improving environmental health.
- *Eco-efficiency*: introducing best practices in waste minimisation at the source, product stewardship, producer/consumer responsibility and zero waste.
- *Sustainability*: assuring that the root causes of our unsustainable and unjust production and consumption models are addressed on a long-term perspective.

Participatory waste management represents an effective, labour-intense, anti-poverty strategy. Organized recycling programs provide an opportunity to enhance public environmental awareness, assisting households in achieving improved waste separation or waste avoidance. As an example, this model has become evident in experiences carried out in Diadema (Gutberlet, 2008) and in Cairo (Fahmi, 2005), where recyclers are acknowledged as environmental operators (Fig. 1). These cases highlight the fact that inclusive waste management is possible. However, many challenges and risks still remain.

The privatization of waste management concerns constitutes one of the major challenges. Transferral of the sector to multinational companies is a threat for inclusive waste management (Fahmi, 2005). This can be reverted with sensible public policies and collaborative public–private partnerships (Ahmed and Ali, 2004). The effects of the current economic crisis have further evidenced the dependency of the recycling sector on the global economic system. It is time to build networks with local recycling business initiatives. An adequate public policy framework should value the generation of employment and the environmental benefits from resource recovery. Such a model chooses to enhance local economic development.

Inclusive waste management contributes towards strengthening participatory democratic processes and towards human



Fig. 1. Door to door collection of recyclables in Diadema, in Brazil (Programa Vida Limpa).

development. As Young (1990) states: “Instrumentally, participatory processes are the best way for citizens to ensure that their own needs and interests will be voiced and will not be dominated by other interests”.

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