

CENTRAL & EASTERN EUROPE

Worse before it gets better - Sustainable waste management in Central and Eastern Europe

Article published in *WARMER Bulletin 68, 1999*

Waste management in Central and Eastern Europe is in transition. Political changes, eventual membership of the European Union (and therefore pressure to align environmental standards), changes in waste streams and uncertain public attitudes present a range of challenges for the future. Yet, despite inherent inefficiencies, waste management remains very well organized. **Anne Scheinberg**, socio-economist for Dutch NGO WASTE (creating with WASTE a joint venture office in Bulgaria), presents a waste planners view of Central and Eastern Europe. The report is based both on experience in Hungary, a mostly modernized waste management system and Bulgaria, not nearly so far into post-transition modernisation and privatisation.

Waste management in Central and Eastern Europe (CEE) is more or less the responsibility of government, irrespective of the involvement of private firms in providing specific services. The case can be made that the involvement of government, with its efficient collection of taxes and fees, constitutes the principal motivation for any private interest in investing in any aspect of the waste system.

Municipal Solid Waste

In CEE countries, although municipal solid waste (MSW) varies in composition widely from country to country, it has some generally recognisable features:

- ◆ On average, MSW contains 30-50 per cent organic material by weight. This is unevenly distributed, with most organic materials present between April and November. In the summer, subsistence-related food preservation activity makes for nearly 100 per cent organics in many garbage cans
- ◆ MSW is low in paper content - paper tends to be hoarded for re-use. In small- and medium-sized municipalities (where there is no central heating) wood, coal, and virtually all paper and packaging is burned. The waste stream between November and the end of March consists of up to 30 per cent wood ash and clinker from heating stoves. Much live ash is disposed of in individual and communal waste containers, where it frequently sets fire to the plastics in the waste
- ◆ MSW contains a relatively high proportion of plastics (up to 10 per cent) - dominated by low density polyethylene (LDPE) films and unexpanded styrene yoghurt containers

Waste collection systems - well organised but inefficient

Frequently, Western observers make the mistake of seeing inefficiency and inferring an underlying chaos. In fact, waste management systems are very well-organised in many aspects of their operation.

All residential areas (including most villages) are provided with regular collection services. There are clear administrative boundaries: even relatively remote villages are served

by the nearest large municipality, under whose jurisdiction they fall.

Generally collection is carried out by experienced drivers and crews, working familiar routes with reasonable collection frequency (twice or three times per week in urban centres, twice weekly beyond the centre, weekly in large housing estates, and sometimes monthly in villages).

Most residents pay for waste collection in their taxes. In Bulgaria some pay a separate waste tax, based on the value of the property. Payment by volume, even for commercial and industrial waste, is rare.

The most frequently encountered administrative system for waste management is the municipally-owned company, functioning as a separate entity with its own management structure and budget. The city often has separate inspectors whose job it is to control and monitor the company's performance.

Post-collection cleaning and street-sweeping is effective, so city streets tend to be clean, swept daily by hand.

Technical Inefficiency

While these systems are undeniably effective, they are also, by Western standards, tremendously inefficient, in the sense that the amount of work that is done is less than would be the case for the same amount of labour, fuel, and resources used elsewhere in the world. This is hardly surprising in a part of the world where keeping people employed was a priority of public

policy; fuel prices were artificially depressed; and equipment and materials were funded or directly provided to municipalities by the central government to the municipal governments on highly concessional terms.

Specific inefficiencies include:

- ◆ containers which do not close well, discharging their contents onto the street
- ◆ using combustible plastic containers which can be ignited by hot ashes
- ◆ late collection so that trucks compete with street traffic
- ◆ inefficient equipment
- ◆ no incentives for efficiency
- ◆ no accurate measurement tools - waste is often neither weighed nor measured.
- ◆ cross-subsidies, which makes i.e. difficult to assign accurate costs to municipal waste collection
- ◆ limited access to information on collection efficiencies or tracking

The waste management infrastructure is often misperceived by Western observers, who equate efficiency with organisation. As a consequence, Western consultants or foreign investors tend to focus their efforts and activities on technical assistance in the areas of organisation, and not directly on the question of efficiency. Accordingly, they frequently manage to disrupt the organisation of the existing system, without improving long term efficiency.

Disposal

Disposal in CEE countries is heavily reliant on crude landfills, or dumps. These are typically located in geological depressions, wetlands, clay pits or excavated quarries. They are virtually always unlined, usually close to running water, with no gate controls (perimeter fencing is usually stolen and sold as

scrap). These dumps are typically 5-15 kilometres from the centre of the main city in the jurisdiction, frequently adjacent to cultivated fields, and nearly always drain directly into an important surface water body.

In the 'first tier' candidate states for admission to the European Union, a flurry of landfill construction in the last five years has produced a significant number of modern facilities, boasting liners and leachate collection systems.

Recycling

The experiences with municipal recycling in CEE countries have been poorly conceived, half-heartedly executed, and have shown miserable results. There are two typical approaches: the 'import igloos* model and the 'pilot project' model.

Import Igloos model

This involves buying second-hand drop-off boxes of the igloo type, probably as a side deal related to the purchase of trucks or waste containers. Igloos are deposited in the middle of housing estates without even changing the labels to the local language. There is no attempt to determine whether the recycling stream the container is designed for actually is generated, and in what volumes. For example, brown glass igloos are often introduced, even though the CEE waste stream contains virtually no brown glass.

Given this, it's not surprising that participation rates are miserable, capture is minuscule, contamination is high, market leverage is zero, revenues are insignificant, and the resulting costs of recovery are astronomical. So recycling has a bad name and these projects get orphaned or shut down as being ridiculously expensive.

The Pilot Project model

This model usually involves a foreign consultant with bilateral donor money from abroad, transplanting a recycling scheme that works well in the home country context, to some well-meaning CEE city which is experiencing some kind of pressure from its environmental ministry to try out some recycling.

The donor provides funding, buys equipment and supplies, supports public communication, and the collection scheme is often a success.

The problem here is sustainability: these programmes are designed to shut down after four to six months, whether or not they are successes, and they leave nothing behind.

These schemes tend to be moderately successful, but have two major constraints.

The time period is too short to measure anything like real performance — four to six months doesn't tell you anything about the long-term. A period of 18 months is advisable to test sustainability.

The second problem is that they are usually designed for a tiny number of households (500 -1.500), and although this may tell the organisers something about participation (which is usually quite high), it tells them nothing about cost, and the operational information yielded cannot easily be generalised.

Pilot projects for less than 10.000 households can rarely provide the necessary economy of scale information to allow an evaluation of whether the scheme is sustainable.

Pilot projects often convey the message that recycling is expensive, frivolous, and irrelevant. Residents get the worst message of all: encouragement to get involved

briefly, change behaviour, and then (even if successful) revert to the old ways within only a few months.

Scavenging

The presence of Roma (Gypsy) scavengers is reminiscent of the scavenging or landfill picking in Latin America and Asia. Typically up to 15 people (mostly women, children, and teenage boys) scavenge each landfill, crawling over the waste as it is dumped from trucks, each with their own speciality. Usually, women recover textiles and plastics, while men target metals.

Roma scavengers do not restrict their activity to landfills: they are the most active collectors of paper and cardboard from businesses, as well as scavenging dumpsters and waste containers on the street for re-usables, especially toys and kitchenware. It is not unusual to see what are presumably father-son combinations, where the father pushes a small cart, and the 7-9 year old son literally dives into the dumpster looking for anything valuable.

Post-Communist scrap industry

In communist times, recycling had the status of a strategic activity, and there was a great deal of state-sponsored recycling, in the form of buy-back centres, paper drives, and clean-ups. This means that for some people recycling is somehow tainted with communist approval, and they use this as an excuse for the poor performance of the public sector in this area.

The Bulgarian post-communist scrap sector is representative. The former state-owned monopoly (Phoenix Resource) had five regional branch organisations which were separately and unevenly privatised, but still have significant central government ownership. However, they function as

autonomous businesses. The commodities handled are typically ferrous and non-ferrous metals, lead-acid batteries, and all grades of paper.

There is a market for whole glass bottles and jars for re-use, which is integrated with a deposit system for soda bottles, but the glass recycling sector is relatively undeveloped. There is one plastics factory which says it buys HDPE and PET, but the market does not appear to be very strong. The highest profile aspect of the post-communist recycling industry is the tendency for scavengers to steal metal grilles and cut telephone and electric wires to sell for recycling. This activity has declined somewhat in the last year or so, but it is still what people talk about when recycling is mentioned.

Non-governmental organisations

There is an almost complete absence of NGO activity in this area. There is little interest in or advocacy for recycling or source separation, and effectively no recycling constituency.

Changing waste stream

Bread and pastries are still bakery-baked, and sold without any packaging or with some kind of paper bag or sheet of grey paper wrap. Eggs are sold by the piece, or in small HDPE or LDPE bags. Fruit and vegetables are sold without packaging, although this is changing rapidly and vendors are beginning to give plastic bags free, rather than charging the equivalent of five to fifteen cents each. Many outlets sell soda and beer only in refillable glass bottles with a high deposit.

There is a rapidly growing tendency for vendors to give out plastic bags, which are re-used once or twice but then end up in the waste stream. At the dumps, most of what is left after decomposition and scavenging is nothing more nor less than plastic

bags. Virtually all small cafés or snack bars serve hot and cold beverages in PVC, HDPE, or unexpanded styrene cups: paper cups are completely unknown.

The message '**waste less: consume less**' does not meet a sympathetic reception. People feel that they are under-consuming, that their economy is fragile, and that they first need more purchasing power and a higher material standard of living before they can consider this kind of restraint.

Attitudes to environment and waste

There is a widespread and unfounded conviction that Central and Eastern Europeans can never be taught anything, can never be convinced to do anything, and will never do anything on their own. This negativity represents, in some ways, a far larger barrier than the physical and financial ones. This barrier has two main aspects described as 'no-money' and 'No Way Jose'.

'no-money'

This is the belief that there is no money, no resources, and that nothing can be contemplated without external funding. This mentality on the part of municipal officials and ordinary citizens alike represents, in my opinion, the beginning of an alarming tendency towards donor-dependency.

'No Way José'

This attitude is that Central and Eastern Europeans are too poor, too unsophisticated, too disaffected, and too used to a dilapidated physical environment to be interested in modifying their waste-related behaviour. This stance is shared by CEE public officials and foreign observers alike, and in fact their prejudices tend to reinforce each other.

Western observers see the degraded and under-maintained physical environment, and conclude that people simply do not care. They do not see, necessarily, the meticulously tended gardens, the washing of the sidewalks (even if they are crumbling); the intense attempt to improve factors that people perceive to be within their control.

Westerners see litter and do not notice the absence of litter baskets. They see uncut grass and do not think about the fact that most buildings are on public land, and that the communist structures for maintenance have all collapsed, and that while people own their apartments, no institutional solutions exist for individuals or associations to fill the role the State has vacated.

The experience to date in CEE countries gives the lie to this attitude. In the only municipally sponsored Bulgarian long-running source separation project, the Blagoevgrad Ash Separation project, participation in a housing estate of 4,000 households is close to 100 per cent.

Participant opinions are extremely positive, and many of those surveyed expressed a willingness to move to source separation of compostables next summer. In other cities, residents, particularly women, hand their waste directly to the collectors, have a friendly conversation with them, and sweep the street after the truck passes. This indicates a high willingness to work for a clean and healthy environment, the precise opposite of 'received wisdom'.

Finally, even though older civil servants mourn the days when "...people were more obedient and respectful" the break-down of communism has not eliminated the habit of obedience to public

authorities. This means that a programme which a local government designs well and promotes thoroughly has a high likelihood of succeeding.

Conclusions

Given the rapid changes in consumption patterns, the waste situation in Central and Eastern Europe is likely to get worse before it gets better.

On the down side, amounts and diversity of packages and products are increasing, recyclability and degradability are decreasing, and there is a rapid increase in waste volume.

On the positive side, there is a far greater willingness than is normally supposed to co-operate with new schemes, and there is a strong likelihood that well-designed recycling and composting programmes could work well.

The very fact that consumption is low, that people provide a considerable amount of their own food from gardens and home preservation, and that there is a habit of re-use and thriftiness can perhaps be interpreted to mean that the waste stream might not grow all that quickly.

What can be done? This depends on who is asking. **Western observers**, in their role as development professionals, consultants, or advocates, can inform themselves to better interpret what they are seeing. **Public officials** can be encouraged to innovate, and especially to consult and trust in their constituencies.

Donor agencies and consultants can avoid the most egregious errors in the pilot project model, by insisting on projects designed to succeed, to continue indefinitely, and to be affordable over the long term without outside funds.

Private firms, potential investors, and equipment manufacturers can be held to stricter ethical and operational standards, and **banks** in particular can look more carefully at investment deals, making sure the financial structure is sustainable for all the parties, not only for the investors.

Officials of the European Union have a large role to play, in terms of rationalising the harmonisation process so that countries in summary, a combination of unbiased observation, learning the lessons of experience, and common sense have more of a potential to improve environmental and economic performance than any particular technology. And if zero waste seems a long way off, at least there are some positive actions to be taken along the way.

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