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## Full Paper for CIWM 2008

# Managing biowaste and promoting sustainability - profiling community composting

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### *Introduction*

This paper presents interim findings from a project called 'Unlocking the potential of community composting' (project ref WR0211) funded under Defra's Waste and Resources Evidence Programme (WREP). The project is led by the Integrated Waste Systems research group at the Open University in partnership with the **nef** (new economics foundation), the Community Composting Network and the London Community Recycling Network (LCRN). The project commenced in December 2006 and will end in November 2008.

The voluntary and community waste sector makes an important contribution to waste objectives (Williams et al, 2006). Community based composting schemes can make valuable contributions to the development of local infrastructure and amenities by improving soils and green spaces in addition diverting waste from landfill. However, this is often only part of the story. Well managed community activities have huge potential for providing work and volunteering opportunities, as well as bringing people together and improving skills, knowledge and self-confidence. Considered collectively these factors may contribute to local sustainability more effectively than focusing on meeting particular waste related targets.

Although there is some anecdotal and financial evidence for the growth in, and diversity of, community composting, there is very little comprehensive data that draws together the activity of the sector as a whole. This paper starts to address that gap by presenting a summary profile of the community composting sector based on a national survey as well as exploring key success factors and challenges facing the sector drawn from a series of regional participatory workshops with community composting practitioners.

### *Background and context*

The term 'Third Sector' encompasses a wide range of organisations including community groups, voluntary organisations, charities, co-operatives, mutuals, social enterprises and community interest companies. Over recent years there has been growing recognition of the importance the Third Sector can play alongside the public and private sectors in service delivery. According to the Minister for the Third Sector:

"The sector can play a vital role in developing high quality services the public rightly expects. Charities, voluntary groups and social enterprises have particular strengths, such as reaching the most disaffected people, finding innovative solutions and offering a personal touch" (Hope, 2008).

In line with this there is increasing focus on the role of the Third Sector in contributing to environmental and waste management objectives. Defra are developing a Third Sector Strategy aimed at maximising the contribution from organisations in the sector towards Defra's goals (Defra, 2007a). The Waste Strategy for England (Defra, 2007a) commits to making greater use of Third Sector expertise and to seeing the sector win a greater share of local authority waste contracts and new policies to build capacity in the sector are being supported through the Futurebuilders programme and initiatives led by the Waste Resources and Action Programme (WRAP).

Alongside this are calls for better understanding of, and evidence for, the impacts of the Third Sector in strengthening communities and delivering services. The Office of the Third Sector (OTS) is collating evidence of the impacts of organisations across the sector, and ESRC (in partnership with OTS and The Barrow Cadbury Trust) are commissioning an independent, multidisciplinary Third Sector Research Centre.

### ***What do we mean by 'community composting?'***

The community composting sector encompasses a diverse range of groups and organisations running a wide variety of composting projects. It would therefore be misleading to try and determine a 'one size fits all' definition. We wanted to provide as complete a picture as possible of the groups and activities that come under the umbrella of community composting. The meaning of community composting we used to develop the profile of community composting activity contains the following characteristics:

- includes a range of groups/organisations from informal collectives of individuals, small grant/charitable funded organisations, organisations relying on grants and tradable income, through to larger scale self-funded entities. This includes community groups, volunteer organisations, charities and social enterprises;
- includes organisations involved in a range of composting and composting related activities, including one or more of the following: collecting and composting material; educational campaigns; promoting home composting and facilitating others to carry out composting;
- carrying out and promoting composting might be the main activity of the organisation, or it might complement additional resource management activity (such as waste minimisation or re-use) or broader sustainability and community support activity;
- includes organisations with a mix of environmental and social objectives.

### ***Profiling community composting activity***

#### **Data collection**

The results presented in this paper are drawn from a national survey of the community composting sector and from 4 regional workshops carried out with community composting practitioners.

The survey was carried out in 2007 and covers data reported for the calendar year 2006. A questionnaire was distributed to 193 members of composting and recycling networks across England, Scotland and Wales; 132 responses were received - a response rate of 68%. Findings are presented in the report 'Community Composting Activity in the UK - 2006' (Slater, 2007 - available from Defra, OU and CCN websites - see references). The workshops were conducted in 2007 and attended by 52 participants from 46 different groups - representing over 50% of the sector involved in carrying out or promoting composting of household waste.

#### **Types of groups & organisations**

Survey results show that more composting groups are working informally without legal status compared to groups in the wider community waste sector. Around 38% of groups involved in community composting are people working informally in groups or as unincorporated groups with a governing document. In contrast, the overwhelming majority of organisations in the wider community waste sector are companies limited by guarantee (58%) and/or charities (57%) (Williams *et al*, 2005).

## Regional distribution

Most community composting organisations are based in England (88%) where the most active regions in terms of quantities composted are the South West (20%) and the North (North West - 20%, North East - 14%, Yorkshire and Humberside - 22%) with relatively little activity reported for the Midlands, East of England and the South East.

Results show that London has the highest density of organisations but accounts for only 1% of material composted. This is due to the small scale of urban sites (city farms, allotments, community gardens) and that one-third of respondents in London are involved in education and promotion of composting rather than collecting and processing material.

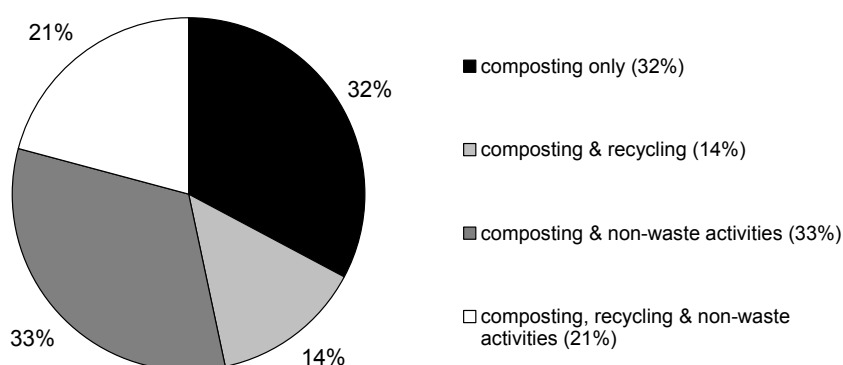
## Community composting and related activities

Activities that fall under the umbrella of community composting include community groups that:

- collect/receive and process material;
- run education campaigns;
- promote home composting;
- facilitate others to develop/promote community composting.

Respondents carry out at least one of these activities and many are involved in more than one. Overall 80% of organisations are involved in collecting and composting material and 20% are involved in forms of community composting activity other than collecting and composting. In addition, many organisations are also involved in other waste and/or non-waste activities.

Composting may be carried out alongside other recycling activities or more commonly, alongside non-waste activities such as running community gardens, city farms, local food production, day and residential services for adults with special needs, training and work integration schemes. Figure 1 shows the proportion of organisations that are involved in community composting only, and the proportion that are involved in composting as well as the recycling of other materials and/or non-waste related activities. This shows that there is no single combination of activities that dominates the community composting sector; rather the activities in which organisations are involved are spread across the mix of options.



**Figure 1** - Percentage of organisations involved in composting only, composting and recycling and/or non-waste activities

The largest community composting sites are more likely to be run by organisations dedicated to composting, whereas the smaller sites are more likely to be run by organisations involved in a range of activities. For 40% of organisations, undertaking composting is their main objective and activity. For the majority (60%), composting is an activity which complements other social and environmental activities and objectives.

## Number of sites and material composted

Findings show that 84 organisations are involved in collecting/receiving and composting material at 121 sites. When extrapolated to account for non-respondents this increases to an estimated 170 sites. The proximity principle is an important element of sustainability and underpins the ethos of community composting. This is reflected in the profile of the sector with features such as decentralisation and small-scale activities showing up strongly; around half of sites process  $\leq 10$  tonnes per annum (tpa) and two-thirds process  $\leq 30$ tpa. Twenty eight sites process  $\geq 100$ tpa (including three that process  $\geq 1000$ tpa) which collectively accounted for 93% of all material composted by the sector. Most respondents run one site, with 12 organisations running multiple sites.

Responses show that approximately 20.5k tonnes of material was composted at community run sites in 2006. When extrapolated to account for non-respondents this increases to an estimated 21.5k. It is important to note that this figure relates specifically to composting carried out at community sites. The sector also contributes to organic material diverted from landfill through educational and promotional activity, e.g. master composter schemes that promote home composting. In addition, the sector also contributes to landfill diversion by collecting organic material and transporting it to commercial sites - estimates for the quantities collected have not been included in the survey data as the composting is carried out at commercial rather than community run sites.

To-date the development of the sector has relied predominantly on composting garden waste. Around 80% of sites compost garden waste exclusively - mainly from households but also from local authorities' parks and gardens and allotments and community gardens. Around 13% of sites process a mixture of garden and food waste (mostly meat excluded). Food waste composting is a developing area for the sector and is expected to increase over the next few years, and several organisations said they were in the process of planning or implementing food waste collection and composting schemes.

Findings show that most sites (70%) offer a 'bring site' facility (where householders or local authorities bring their garden waste to the site) - around half of these rely exclusively on this method and half combine it with a collection method, either collecting from the kerbside or from household waste recycling centres. Around 30% of sites rely exclusively on kerbside or door-to-door collections from households and this collection method accounts for 25% of all material composted by community groups.

## People involved in community composting - volunteers, trainees and staff

The community composting sector offers significant opportunities for volunteering. Results show that over 1,000 volunteers were involved with the sector in 2006. In addition the sector also offered trainee opportunities or placements for over 200 workers and employed 178 core, paid staff.

Results in Table 1 show the reported number of full and part-time workers involved in community composting activities. This shows the sector relies heavily on part-time volunteers; around three-quarters of all workers recorded are volunteers and over 95% of these work part-time.

Table 1 - Number of core paid staff, trainees, placements and volunteers involved in community composting activities

Category	Number of workers		Total workers full and part-time
	full-time	part-time	
Core, paid staff	93	85	178
Trainees and placements	73	139	212
Volunteers	33	968	1001
Total	199	1192	1391

Results show that one-third of community composting organisations are entirely dependant on volunteers and have no paid staff. Around half of the organisations work with 5 volunteers or fewer, around one-quarter of organisations have more than 10 volunteers and 5 organisations reported working with more than 30 volunteers. Two-thirds of community composting organisations employ a small number of full and/or part-time staff. Almost 90% of groups employ 5 or fewer paid staff and half of these employ 1 or 2 staff members.

As with other areas of the community composting sector the survey found no 'one' typical pattern related to staff and volunteer opportunities. However, there do appear to be a number of different models relating to staff and volunteers which reflect the wider objectives of certain organisations. These models appear to have the following characteristics:

- organisations with no core staff using a small number of volunteers - volunteers tend to be householders/allotment holders working collectively to run a small site and compost/use their own garden waste;
- organisations with a small number of core staff and larger number of volunteers - volunteers tend to be householders involved in composting education and promotion, e.g. master composter programmes;
- organisations with a small number of core staff that offer training and intermediate labour markets for disadvantaged/excluded groups - e.g. groups that work with the probation service to offer training and work integration opportunities;
- organisations with a small number of core staff that offer therapeutic work for special needs groups - e.g. volunteers/placements might be users of services aimed at providing training and skills to move towards independent living.

## Key success factors and challenges

Key factors to the success of community composting and challenges facing the sector were raised in the survey and explored in more depth in the workshops. Results have been categorised into 'support from the local community', 'project continuity' and 'legislation, policy and standards'.

### Support from the local community

Support from the local community is a key factor for successful projects. The stakeholders listed below are considered important in providing support and a simple ranking exercise during the workshops showed that local authority support is considered crucial by most participants.

- Links with and support from the local authority (county, district and parish councils);
- Local residents as participants in the scheme (habitual participation);
- Groups active in their local community (allotment society, gardening clubs, schools);
- Other third sector organisations;
- External profile of the project and relationship with the local media (TV, press, radio).

Local authority support can take a variety of forms, the ones cited most frequently were: start-up or other small grants, payment of recycling credits, renting or donation of equipment, staff time and resources and service level agreements (SLA).

As many groups cited support from their local authority as a crucial success factor, others, where support was lacking, cited this as a barrier to their operations and development. A number of reasons were raised as to why support may not be forthcoming. Some groups felt the community sector is not seen as a serious option by local authorities but as 'alternative' or 'fringe'. In some areas local authority waste policy is inconsistent with small-scale composting, especially in areas with large integrated and long-term contracts with the private sector for waste services. A number of groups had experienced competition with their local council with respect to green waste collections, often with the council introducing a scheme after the community group had set up their activity. In contrast, in a number of cases the respective council had worked with the community group to facilitate complementarities between schemes, examples include: 1) bring community composting sites operating in rural areas where council kerbside collection is not viable; 2) the council not introducing kerbside collection in the areas where the community group already



provides a reliable and established collection service; 3) community based schemes set up as pilots funded by the council with a view to council adoption if successful.

Support from the local community is also important in securing and retaining householder participation in composting schemes. Some groups felt that residents are more inclined to support a community based scheme because of its locally based social/environmental objectives. There was a strong sense that community based groups have a more 'personal touch' compared to public/private service providers. Face-to-face communication with residents and high and regular visibility within their community was felt to be important in getting the message across and getting residents involved. Making the scheme easy and convenient to participate, appropriate infrastructure and continuous dialogue with residents including feedback on scheme performance were all considered important participation factors. Although these are important factors whoever is delivering the service, community groups felt they were often better placed to access and communicate with their communities compared to public/private providers and this was echoed by local authority participants in follow-up workshops.

### **Internal factors - project continuity**

We have used the phrase 'internal project continuity' to aggregate a number of factors raised which are key to running any successful project, community group or small business. The most common of these factors that were raised in the workshops are listed below:

- Clarity about what you want to be and do. What is your unique selling point?
- Leadership - composting 'champion'
- Know how to produce good compost
- Workers - staff and volunteers
- Securing income and moving towards self-financing

A clear vision and focus was considered important for project success but sometimes difficult to maintain - one reason for this is likely to be multiple objectives and activities. Findings from the survey show that for the majority of groups (60%) community composting is not their main activity but a complementary activity carried out alongside other recycling, or more commonly, non-waste activities. This may be internally driven where composting is considered an appropriate 'vehicle' to achieve other ends - such as training and development or providing therapeutic work opportunities. Or it may be externally driven in response to changing policy goals and funding opportunities. A project exploring success in social enterprises in the waste sector found that multiple activities can lead to a lack of focus, and concentrating on core activities may be more likely to lead to growth (Brook Lyndhurst, 2007).

Strong leadership is important to the success of projects. We found that established projects were often initiated and driven by a passionate individual with commitment and energy to realise the project's vision. However, there may be issues around capacity or appropriate leadership skills - groups often want to focus on the practical aspects of the composting and may not have the capacity and skills to develop the leadership, management and administrative processes. Several participants commented that the extent of the administrative requirements from external funders and local authorities caused them problems and distracted attention from the more important (as they see it) day-to-day operations. Capacity is also a problem for some groups with multiple objectives as this requires networking and possibly collaborative working arrangements across multiple agencies or local authority departments. This is a lengthy, staff intensive and time consuming process and also requires networking skills that individuals working in groups may not have or indeed see as a priority.

Knowledge on how to produce good quality compost was also considered key - participants observed that this was both an 'art and a science', often developed through years of practical experience - this raises the issue of succession planning and the problems of the loss of knowledge and momentum when an experienced leader moves on.

For groups heavily reliant on volunteers, volunteer commitment and goodwill is a key success factor. The groups' ability to tap into this goodwill and recruit and retain volunteers was also an important issue. Volunteer 'burn-out' was raised as a key challenge. Generating initial enthusiasm

was not considered too difficult, but maintaining that enthusiasm and retaining volunteers can be problematic and incentives need to be built into the project to address this.

Securing income and self financing was seen as important factor for many groups to sustain their activity in the longer-term. Around half of community composting groups are self-financing or survive without income - typically these are smaller groups (composting <5 tpa), the self-financing element comes mainly from the receipt of recycling credits and in some cases from membership from local residents to join the 'compost clubs' run by groups. Payment of recycling credits to community composting groups varies depending on arrangements with local authorities. Groups involved in a range of activities in addition to community composting received more income from grant funding for their composting activity compared to those that focus exclusively on community composting.

### **Legislation, policy and standards**

Most of the issues raised under this category were about the lack of appropriate regulation and policies for the small scale of community composting activities. The lengthy and intensive planning process, cost of licensing/exemptions and import/export restrictions, and Health and Safety regulations were raised as particular problems, as was the poor availability of suitable sites. The introduction of the 2005 Animal By-Product Regulations (ABPR) had proved a significant difficulty for some groups although small-scale processing systems are now (or are in the process of becoming) ABPR approved.

For most groups, confidence in the quality of the composted material came from the experience of using it. A small number of groups raised the issue that the PAS 100 specification for compost quality is not appropriate for small scale composting activities.

Participants felt that policy favours a focus on landfill diversion targets over wider issues of sustainability and the value of local solutions and associated benefits. Alongside this, issues of the perverse effects of targets were raised - e.g. recycling targets and the lack of home composting targets detracts from the more sustainable option of home composting.

### **Concluding remarks**

This paper has presented a summary profile of the community composting sector. The findings in this paper are drawn from a report that gives the most comprehensive picture of community composting available to-date and highlights the diversity of the sector and the range of activities undertaken by organisations (see Slater, 2007). Appreciating this diversity and how it often cuts across different government policy areas is important in understanding what the sector can offer and how it can be supported. For 40% of organisations, composting is their main objective and main activity. For 60% of organisations, composting is a complementary activity to help achieve other, often social, objectives. Composting may be carried out alongside other waste and recycling activities, or more commonly, alongside non-waste activities such as community gardens, city farms, local food production, day and residential services for adults with special needs and work integration schemes.

The findings presented here relate mainly to quantitative outputs from composting activity - such as number of groups and sites, amounts of material collected/composted and number of staff and volunteers. Community composting and related activities can also bring about positive environmental impacts and social benefits for local communities over and above the amount of material diverted from landfill. Knowing and understanding these impacts and benefits is really important in knowing and understanding the role of the community composting sector. Softer and more intangible benefits may be recognised by community organisations but are unlikely to be captured in formal evaluations because traditional assessments focus primarily on quantitative and relatively easily measured features. The next stage of this project will work more closely with five different types of community composting groups to help explore this issue in more detail with the aim of developing ways to better understand and demonstrate these impacts.



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## **Biography for Dr Rachel Slater**

Dr Rachel Slater MCIWM is a Research Fellow in the Integrated Waste Systems (IWS) research unit at The Open University (OU). She has over 15 years experience in waste management and worked in the commercial sector before joining the OU. Her research interests focus on social and policy aspects of waste and resource management, particularly recycling and composting, and on the role of the Third Sector in contributing to waste and wider social and environmental objectives.

Rachel has authored numerous publications including academic journal papers, book chapters, and industry and practitioner reports. She has presented IWS research findings to a range of audiences including academics, policymakers and practitioners. She has been invited to speak at national and international conferences, including those organised by the Japanese Organic Recycling Association, the European Compost Network and the UK's Composting Association. She has also presented at conferences on Waste and Resource Management (Waste 2006), Biodegradable and Residual Waste Management (CalRecovery) and Technological Innovation and Environmental Sustainability (Global Environmental Change Programme).

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