

NEWS

RECYCLING OF USED PLASTIC CONTAINERS LIMITED

11,300 Tonnes of Plastic Bottles Collected in 1999

The annual RECOUP survey provides a unique overview of local authority plastic bottle recycling activity in the UK and planned growth. The 1999 survey was the seventh carried out by RECOUP. The results presented in this publication are based on information generously supplied by UK collection scheme operators and local authority recycling officers.

The survey results are comprehensive and informative, answering many important questions: How many plastic bottles were collected in the UK last year? Which new collection schemes were established in 1999? How does your local scheme compare to the national average for recovery efficiency or bottle banks per household? What growth is planned for the future?

The results provide a summary of the current UK situation for those with an interest in plastic bottle recycling and will assist potential operators planning a collection scheme. What are the most widely used collection banks and kerbside containers? How many bottles can you expect to collect? Which are most widely used - kerbside or bank collection schemes? - The RECOUP survey addresses these common queries.

- **41% of UK local authorities operate a plastic bottle collection scheme**
- **More than 2.75 million households have a kerbside collection including plastic bottles**
- **An estimated 11,300 tonnes of plastic bottles were collected in 1999 - over 225 million bottles**
- **There are over 3,750 plastic bottle collection banks**

For further assistance when planning a collection scheme please contact RECOUP.

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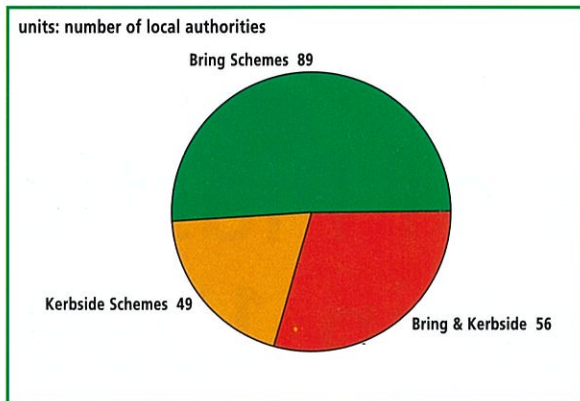
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Recycle 

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The Results

Fig.1 Collection scheme types in use



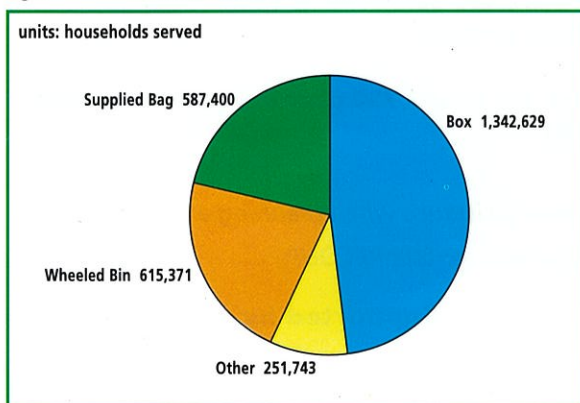
The 1999 survey revealed that there are now 194 plastic bottle collection schemes in the UK. 41% of local authorities now have collection facilities for plastic bottles within their area. Of these, 46% of all schemes rely solely on bank collection, 29% operate a combination of bank and kerbside collection while 25% of the authorities collect plastic bottles entirely from the kerbside.

There are now 3,757 plastic bottle collection banks in the UK on 2,660 sites. Over 2.79 million households are covered by a kerbside collection that includes plastic bottles.

A number of new schemes and new material reclamation facilities (MRFs) began operation during 1999 improving the infrastructure for plastic bottle recycling in the UK.

New local authority schemes included: Huntingdonshire District Council, Lincoln City Council, Fenland District Council and West Dunbartonshire Council.

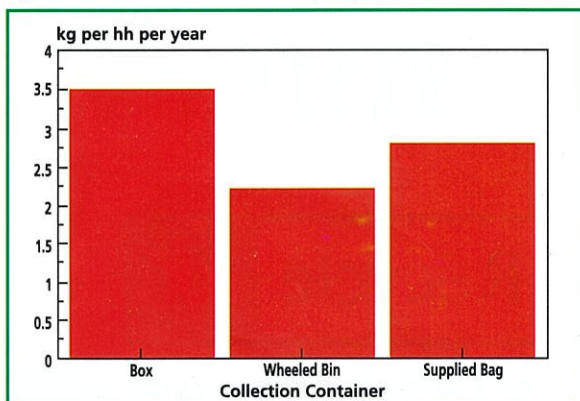
Fig.2 Collection containers used by UK kerbside collection schemes



Of the 279 local authorities not collecting plastic bottles, 139 already operate a kerbside collection scheme which plastic bottles could potentially be added to in the future (4.6 million households). It has been identified that 23 local authorities collecting plastic bottles from the kerbside have an additional 720,000 households, on kerbside but not collecting plastic bottles, that could be added to their schemes.

Kerbside Collection Schemes

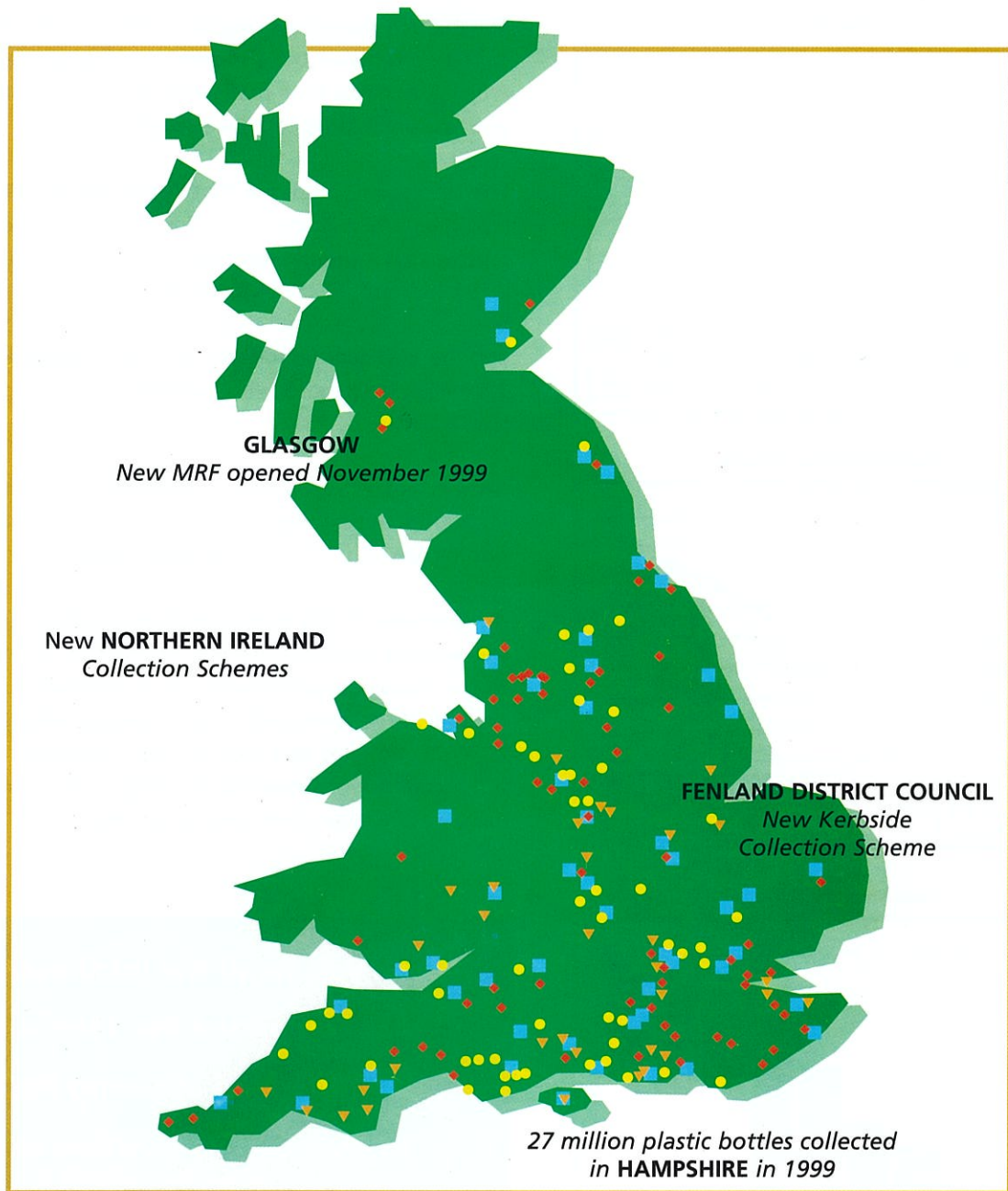
Fig.3 Average mass of plastic bottles collected per household per year



The most prevalent collection container used by schemes operating kerbside plastic bottle collection is the supplied kerbside box. 48% of UK kerbside collection schemes choose to use a kerbside box, 22% use a wheeled bin and 21% use a supplied bag. The remaining 9% of schemes make use of a variety of alternative containers such as baskets with handles for residents of flats or householder-supplied carrier bags.

The recovery rate is one important indicator of a scheme's performance. The survey results over the past two years indicate that the greatest recovery rates are achieved when a dedicated collection container is provided to users.

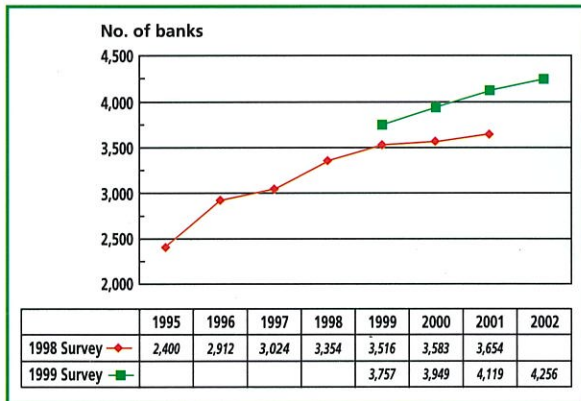
Plastic Bottle Collection Schemes & Material Reclamation Facilities in The UK



- MRF
- ◆ Bring Scheme
- Kerbside Scheme
- ▼ Bring and Kerbside Scheme

The Future

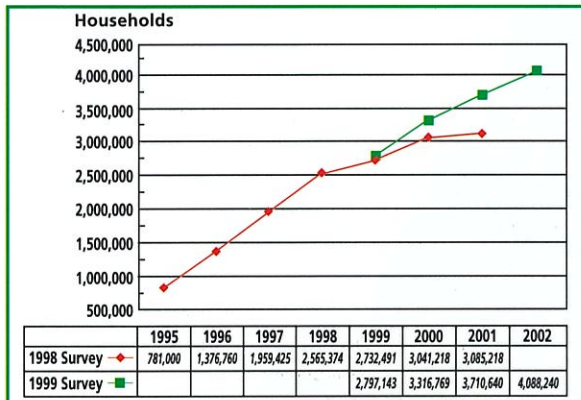
Fig.7 Bring scheme growth



The RECOUP survey not only identifies current plastic bottle collection facilities, but also monitors planned developments. Projections made from past survey results have provided accurate predictions of future growth.

The 1998 survey predicted that by the end of 1999 there would be 2.73 million households with a kerbside collection scheme that includes plastic bottles. The 1999 survey found 2,797,143 - within 3% of the projection. The number of households is predicted to grow during the next three years and the 1999 survey indicates that there will be an additional 1.3 million households with kerbside collection including plastic bottles by 2002.

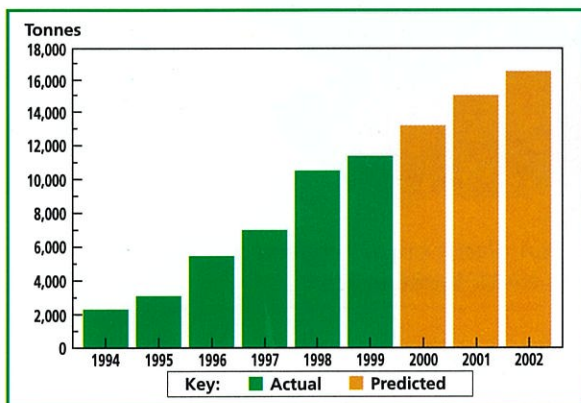
Fig.8 Kerbside collection growth



Growth was also predicted for plastic bottle banks. Local authorities indicated that by 2002 there would be 4,256 plastic bottle banks - up 13% on the 1999 figure.

An estimated 11,300 tonnes of plastic bottles were recovered for recycling in the UK in 1999 - an increase of 8% on the 1998 figure. Using the predicted kerbside and bank coverage for the next three years, and current average collection figures, RECOUP estimates that approximately 16,500 tonnes of plastic bottles will be recovered for recycling in 2002 - over 100 million more bottles than were collected in 1999.

Fig.9 Collection projections

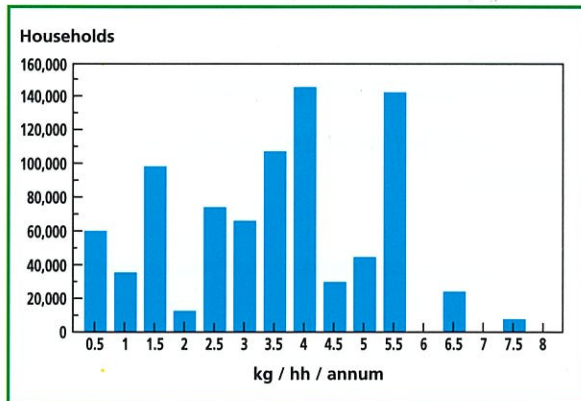


Thank you to all the local authorities that completed the 1999 survey questionnaire allowing RECOUP to maintain its position as the number one source of plastic bottle recycling information in the UK.

Look out for the 2000 questionnaire in November!

Distribution of kerbside box collection performance

Fig.4

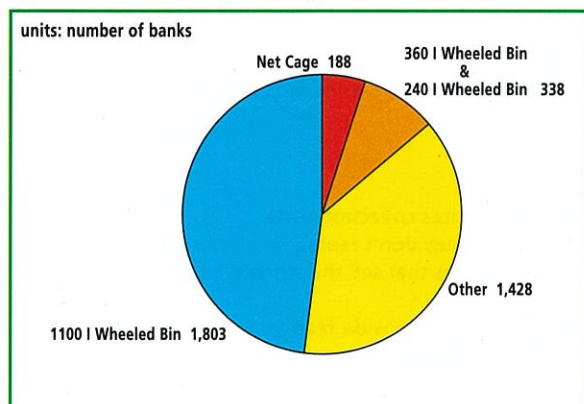


The kerbside box continues to show the highest recovery rates (3.5 kg of plastic bottles deposited per household per annum) with supplied bags recording approximately 2.7 kg per household per annum and wheeled bins approximately 2.2 kg per household per annum.

It is clear from the collection scheme figures that the choice of collection container is only one factor influencing the amount of material recovered. There is wide variability of performance between schemes using a similar collection system. Some schemes operating a kerbside collection, using a box, recovered less than 0.5 kg of plastic bottles per household per annum, while others recovered more than 7.5 kg per household per annum - double the average. Increased and regular frequency of collection, sustained local promotion and a broad range of target recyclables can all contribute to higher recovery rates. The relative importance of these factors is currently being evaluated with the findings expected to be available later this year.

Bring Collection Schemes

Bring bank types in use

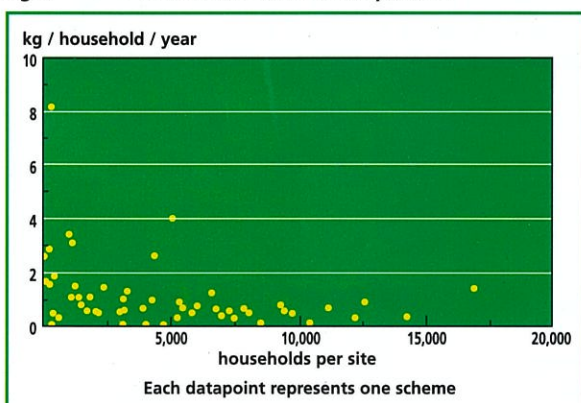


One of the principal scheme design choices, when establishing a bring collection scheme, is the choice of collection bank.

The 1,100 litre wheeled bin is the most widely used collection container in the UK with 1,803 1,100 litre wheeled bins used for the collection of plastic bottles (48% of all container banks). Smaller wheeled bins (360 and 240 litre) accounted for 9% of the banks and 5% were net cage units. Other containers, e.g. converted skips, recycling pavilions, the original RECOUP 'Bertie' bottle banks and a selection of 'home-made' containers accounted for 38% of all containers used.

Quantity of plastic bottles collected by bring schemes as a function of the number of households per site

Fig.6



Site density has been identified as an important factor influencing recovery rates. Schemes recovering more than 1.5 kg of plastic bottles per household per year have a minimum of 1 site for every 5,000 households. Retail car-park sites proved extremely good locations for high performing collection banks. Local promotion and ease of site accessibility are recognised as important factors, which affect scheme performance.

RECOUN Comment

When you're trying to make your recycling budget go further, why not ask the experts for free advice?

You can draw on years of experience by scheme operators throughout the world to design and develop an efficient, high performance recyclables collection programme through RECOUN.

How can you improve your scheme's performance? Here are a few tips and trends from our research for you to consider.

Kerbside Collection Systems

- Frequency of collection, provision of container and marketing the programme are the most important factors in achieving higher recovery rates.
- Evidence suggests little difference between recovery rates for fortnightly and weekly kerbside collection levels if other features of the scheme are well designed.
- We've found no evidence that collections on the same day as waste significantly improve recovery rates, so don't force same day collection - concentrate on adding recyclables collections efficiently around the existing refuse collection schedule.
- Single and two operator crews report greater efficiencies. There's a strong trend in the US towards single operator, automated collection vehicles and dual compartment kerbside collection vehicles.
- Retendering your waste and recyclables collection? Co-collection has yielded notable cost-savings compared to dual vehicle kerbside and refuse collections. Co-collection can help make kerbside collection an affordable option for rural communities.
- More people participate in schemes as the range of materials collected is increased.
- Participation decreases where householders are asked to separate recyclables into more than one or two materials streams prior to set-out.

Bring Schemes

- Maximise site densities to achieve the best participation rates.
- Participation increases as the range of materials collected on a site increases.
- Choose sites that complement users lifestyles and normal journeys (e.g. retail sites).
- Don't overstretch - local communities and councillors are more willing to support increased resources for recyclables collection where the existing facilities are tidy and professionally maintained.

Promoting

- 'Rinse and Squash!' or 'Step on it!' - encourage householders to crush the bottles, this reduces collection costs.
- Communicate! Studies show many people don't participate in recycling schemes because they don't realise they're there, or what to do. Over 10% of your target users will move house in the next year. Choose simple messages that sell the scheme and reinforce them regularly.
- 80% of your contamination comes from 20% of your users. Work with collection operators to provide feedback directly to the users who are setting out the wrong materials: start with notices in the collection container, if they persist, make face to face contact - it really works.
- Spend as much time on developing your communication strategy as you do planning the operational elements of the scheme. Studies show that a long-term marketing programme is absolutely vital to maximise the efficiency and performance of your collection programme.

RECOUN provides a range of free services for local authorities and members to help develop excellent recycling programmes for plastics. For more detailed help, RECOUN Services provides detailed technical support and project work on a fee basis that will help you get the best out of your plastics recovery programme.

Call RECOUN for more information.



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