HOUSE OF COMMONS

Environmental Audit Committee

Oral evidence: Chinese restriction on imported waste, HC 741

Tuesday 30 January 2018

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Watch the meeting

Members present: Mary Creagh (Chair); Colin Clark; Geraint Davies; Mr Philip Dunne; Mr Robert Goodwill; Caroline Lucas; Kerry McCarthy; John McNally; Dr Matthew Offord; Alex Sobel.

Questions 1 - 77

Witnesses

I: Ray Georgeson, Chief Executive, Resource Association, Lee Marshall, CEO, LARAC, Craig Curtis, Director, Recycling Association, Jacob Hayler, Executive Director, Environmental Services Association, and Pat Jennings, Head of Policy, CIWM.

Written evidence from witnesses:

- Resource Association
- Environmental Services Association
- Chartered Institution of Wastes Management

Examination of witnesses

Ray Georgeson, Lee Marshall, Craig Curtis, Jacob Hayler and Pat Jennings.

Q1 **Chair:** That was the Chair's demonstration to remind you all to turn your phones off and put them on silent. Good morning, everybody. For the purposes of Hansard, can I ask you to introduce yourselves, starting with Ray Georgeson on the left, please?

Ray Georgeson: Good morning. Ray Georgeson, Chief Executive of the Resource Association.

Craig Curtis: Craig Curtis, Director of the Recycling Association.

Pat Jennings: Pat Jennings, Head of Policy and Communications for CIWM.

Lee Marshall: Lee Marshall, Chief Executive Officer of LARAC.

Jacob Hayler: Jacob Hayler, Executive Director, the Environmental Services Association.

Q2 **Chair:** Thank you all very much for being here with us this morning, you are all very welcome. This is a subject of great interest to us as MPs and also the nation; everyone has a bin outside their home. We have had different accounts of the scope of the Chinese restrictions with regard to post-consumer plastics and paper. My first question: is it a ban or not?

Craig Curtis: It is a total ban on grade-mixed papers, which is in general what is collected from households and also all plastics. The entire amount of plastics that are from industrial offcuts and that sort of thing are allowed, but the Chinese have said it is from living sources, which is anything that a human has touched, basically.

Q3 **Chair:** Is there agreement on the panel about that, that it is definitely a ban, not a restriction on licences?

Craig Curtis: For those grades, I believe it is a total ban, yes.

Q4 **Chair:** Are there any dissenting views?

Jacob Hayler: I think they have imposed tighter restrictions on some grades. There is a 0.5% contamination limit on some grades; other grades there is an outright ban. There is then a question of whether you can add extra processing to the material here in the UK in order to meet the contamination thresholds. As I think you have flagged, there is uncertainty over the quantity of import licences. The import licences issued so far at the start of the year are well down on previous years. The feedback we have been getting is that essentially the Chinese have taken about 7 million tonnes of capacity out of the market. That is on fibres.

Q5 **Chair:** You are pretty clear. Do you think the Government are clear on this?

Jacob Hayler: I think that they have been working behind the scenes, try to keep a tab on things. Perhaps some of their discussions could have been communicated better with stakeholders. Having said that, I think there is very little they can do. They have been talking to the Chinese, both individually and as part of the European Council; the European Commission has been talking to the Chinese authorities; the United States authorities have been talking to them, but they are determined to go down this route. I think the leverage that we might have is limited.

Q6 **Chair:** Most people watching will be amazed that we export 70% of our paper that we collect for recycling and 66% of plastic waste collected for recycling. Are those figures that you recognise?

Jacob Hayler: Yes, absolutely.

Craig Curtis: It is very similar to that, yes.

Jacob Hayler: We are part of global supply chains here in the UK, so a lot of the stuff that we are exporting gets turned into cardboard. There would be very little point in us creating cardboard here in the UK just to ship empty boxes to China in order for them to fill them and then send goods back in the opposite direction. It makes sense to have your cardboard production overseas, close to those markets, so that is what we have come to rely on. From our perspective, we think this is a real challenge in the long term around the suitability of weight-based targets for recycling.

We think that there could be other smarter ways of doing things. As we have an ever-increasing chase for tonnage in terms of quantity over quality, we are at the mercy of the availability of end markets, which are not particularly strong for the mixed-paper grade, they are not particularly strong for mixed plastics and certain types of plastics. We need to think about how, in the long term, we can insulate ourselves in terms of improving domestic options for that, but that might also require a move away from weight-based recycling targets towards a system that targets environmental outcomes more closely.

Q7 **Chair:** I am sure we will come on to that in deeper questioning. Mr Curtis, your original evidence said that the UK would not be able to meet this 0.5% contamination rate for cardboard, but then we had new evidence saying that it is being met. What happened in the space of a week for that to change? Is it or isn't it?

Craig Curtis: It is. The members of the Recycling Association have all put in place methods and different ways of working for the OCC, which is cardboard grade in particular. That is something that everyone is agreeing, that if it has to be 0.5% for China, we can achieve that situation.

Q8 **Chair:** Is that practically happening among your members?

Craig Curtis: That is practically happening. If there are orders to go to China at 0.5%, they are being filled, yes.

Q9 **Chair:** They will make that happen, even if they have to invest more in the manual handling of it or—

Craig Curtis: That is exactly it. There are two completely different aspects of where cardboard might come from. It might come from households, which needs a lot of sorting, or it might come from commercial, which does not need so much sorting, because commercial activities are quite used to keeping things separate. For the orders that we have at the moment, there is enough material for that, but the tonnage orders from China are so much less than they were, due to the licences.

Q10 **Chair:** You are saying because you are being asked to send less or you are able to send less, you can meet that rate because the volume has declined so rapidly?

Craig Curtis: That would be correct right now.

Q11 **Chair:** What is the difference in the tonnage then? How has the tonnage dropped?

Craig Curtis: I would imagine it has dropped by 40% of what we can send to the Chinese due to the restrictions. One thing that is very strange, no one quite knows the import quotas. They used to be set on a yearly basis for many, many years and it is just so many million tonnes for each company or whatever it was. At the end of last year, when the Chinese Government and their MEP Committee people suddenly decided that they had to look at it very closely, all the tonnage quotas were taken away from many of the mills. That is why they were buying a little bit less at the end of the year. I have read that what the Chinese Government have suggested is that in 2019, it is going to be quarterly licences. This year it is a yearly licence, but one thing that we do not understand—and it is something we would like someone to find out for us—is why they have only released 10% of the licences so far.

Q12 **Chair:** 2018 is going to be a yearly licence?

Craig Curtis: That is what we have read. There are other opinions that suggest this is quarterly, but from what I have read, it seems that in 2019 it is going to go to quarterly. 2018 is yearly, but they have only released 10% of what is likely. It seems that the next tranche of licences and quotas will depend on the individual mill’s performance, because the material is not going to be checked by the mills, but by the port officials and customs on quality. If any of the mills are found to be importing substandard material, then that would impact on their licence. Yes, that is what is happening. It is just coming through slowly.

Ray Georgeson: Chair, if I may, just another important aspect to the dramatic change going on in China that needs to be considered, not only are the Chinese either banning or severely restricting the import of materials, they are investing heavily in their own domestic collection and processing systems. Their current circular economy initiative, which is running from 2016 to 2020, is investing US$31 billion in new infrastructure in China, so they are looking quite dramatically—as is the Chinese way—to transform their internal systems for capturing their own plastics and fibre that are within their own economy.

Q13 **Chair:** In May 2015, we were exporting about 50,000 tonnes of plastic a month. In October 2017, that had fallen to 5,000 tonnes a month. Does anyone have figures for December?

Craig Curtis: No, I do not have those.

Q14 **Chair:** We do not have those figures yet. Are those figures produced with a lag?

Craig Curtis: They must be, yes.

Chair: When do you think those figures will be available?

Craig Curtis: I would imagine the second week into February or something like that, but I do not know.

Chair: Thank you. It is from the HMRC, these trading figures. Caroline.

Q15 **Caroline Lucas:** I just wanted a bit of follow-up, because Mr Hayler was saying that it made perfect sense, in a sense, to be sending our waste over to China if they are going to then make it into cardboard so that you are not then having to send cardboard over separately. Can I just see if everybody else on the panel agrees with that? It still seems to me to be slightly odd that we are sending—or at least aiming to send—such a vast amount of our waste from here to there.

Craig Curtis: In essence, the simple side of things is that China makes so many of the goods that the world buys and each of those goods is put in a cardboard box.

Q16 **Caroline Lucas:** But if they are going to be setting up more of their own circular economy themselves, to be reworking their own waste, I am still surprised that we are quite so complacent about still expecting so much of our waste to go there. I just wondered if anyone had any comments about the sustainability of that model.

Craig Curtis: The next point is there is no point in making boxes in the UK if we have more than we need. With old cardboard and mostly mixed papers—

Q17 **Caroline Lucas:** Is that the only thing you can make with them?

Craig Curtis: —it makes cardboard boxes in general, yes.

Ray Georgeson: It does not feel sustainable, but it raises some fundamental questions about the nature of the things we buy, the things that we are used to in our economy, in our society. If you were to start to think very hard about the cheap toys or the cheap pens or whatever it is that fill our shops and you knew more about how those goods had been produced historically, in terms of the way that poor-quality recycled material has been fed into the Chinese economy over the last 10 to 15 years—and sorted in working conditions that we would not tolerate here in the UK—and then ultimately feeding feedstock into a manufacturer that then exports a nice shiny product in a cardboard box that then comes back to the UK, we do not think twice about it.

There is no transparency in the system that gives anybody any true information about the nature of what it is that we are buying and consuming. If we had more information, maybe some of our buying decisions would be different. Maybe some of them would not be, but I am always a big champion of the need for transparency wherever we go in this business, because armed with better information, you make better judgments as a consumer, as a buyer and as a nation.

Q18 **Caroline Lucas:** What my point was, Chair, I think this whole issue does raise bigger questions about the kind of model that underlies it all. I appreciate that is not the focus of our inquiry, but it is quite interesting just to see what flows forward.

Jacob Hayler: Just to come back to that, I think you are right. It is not sustainable to be collecting material for which there are not available end markets. I think we have two different routes that we can go down. First is to create stronger end markets at home. For some materials, that might be a recycled content obligation, something like that, so we can create markets for use of recycled materials perhaps in packaging that we use here in the UK domestically. That would be a big help.

The other route is to look at other options. In the near term, we might find that of the mixed papers that we create, we can sort it so that some can go into a grade that can be exported or used in recycling options, but for some of it we might find that we need to use it as a renewable fuel, because it does come from renewable sources. In the future, we might find that a lot of this organic biogenic material could be fermented and turned into a feedstock for the chemicals industry. We need to think about how the base agenda links to the Defra agenda and incentivises innovation in looking at some of these potential options for the future.

If China does go self-sufficient, as Ray alludes to—as they intend to—on all these materials within the next five years, it is not just the UK, but a lot of markets around the world are going to be looking for options. What on earth do they do with all this material they are collecting?

Q19 **Chair:** Can I just come back to Mr Curtis? In your evidence, you describe the ban as, "potentially the biggest problem the UK recycling industry has ever faced". Is there agreement on the panel about that?

Craig Curtis: I believe it is, yes, on the quantity of material that we have created and the country collects in the various forms of collection. You are collecting it because you have a market to sell it to. The Chinese market has kept the prices high, because everything is able to be sold. There is never material that you cannot sell because of an over-supply, but we are now in a huge over-supply if there is no Chinese market for it.

Pat Jennings: CIWM members have reported a high degree of uncertainty about what the impact might be. I think there is a feeling it could be very serious. I appreciate the focus today is particularly on paper and plastics, but there are other materials impacted here. The British Metals Recycling Association has sent me through some figures of the impact on metals recycling, which may affect end of life vehicles, waste electronic and electrical equipment and household mixed metals at the Household Waste Recycling Centre. There is a holistic impact right across the entire industry, which should not be forgotten.

Chair: Mr Georgeson, you were keen to come back.

Ray Georgeson: I agree with Craig that the shock that the Chinese ban and restriction will present to our system is dramatic. We have built a system over the last 15 years where we have increased our recycling rates here in the UK almost completely on the back of the Chinese export market; not entirely, but almost. Over a period of time, I think we have become comfortable and to a degree complacent that that was a ready and easy market for our economy to take advantage of.

We lost our way somewhere in the last decade, having started in the early 2000s on a programme of recycling market development here in the UK, when the then Government launched their Waste Strategy 2000, which had statutory recycling targets and it launched the WRAP programme, which the Committee will know I worked for at the start. That started on a programme of market development, research and development, technical barrier removal, a huge industry programme to help to build sustainable home markets for the materials that we knew we were going to have to collect. Part of the way through that process, WRAP continued to be given more jobs to do by the Government. You will all be familiar with this: it got busy doing lots of other important things that needed to be done.

The supply chain responded by rapidly expanding the mixed recycling, comingled recycling way of collection, with the material sorting facility and largely the onward export. The Chinese market then exploded. When all of that happened, the eye was taken off the ball in terms of our home market development. To be honest, Ministers lost interest towards the end of the Labour Government. The next lot of Ministers did not show much interest at all, it has to be said, because everybody sat back and was comfortable that the recycling rates were going up and China was taking the material.

Now we are paying the price for that, because we are some years behind where we could have been on our home economic development. By "home", I mean the UK and the rest of Europe, because many of these materials are globally traded and that is not going to stop. If we can meet the quality standards that the Chinese and others require and the sorting that goes on in those other countries meets environmental conditions that we would find acceptable, then we should carry on exporting as part of our mix of material usage. But deep down, if we are transitioning to a circular economy, we need to move more seriously towards a system that uses materials closer to home, reuses, remanufactures and is less linear and less intense in the way that those materials are ultimately discarded.

Q20 **Chair:** Thank you. Ms Jennings, can you send us through those figures you have been sent?

Pat Jennings: I have done, yes. They should have been with your clerks this morning.

Chair: That is perfect, thank you. They are not in our brief, so we have not seen them, but that will be very interesting. They are the tonnage and type that you sent?

Pat Jennings: Yes.

Chair: Great, thank you. Just on Mr Hayler's point about mandating recycling, obviously this is something this Committee said before Christmas. It is something we have been aware of for several years. Ours is often a lone voice crying in the wilderness, but now there are several voices with us, which is good news.

We are going to move on to the next question. Robert.

Q21 **Mr Robert Goodwill:** We have heard some evidence since October that recycling of material, particularly plastics, has been stockpiling here in the UK. Could you tell us how much waste has built up and is the build-up gathering pace? I am not sure who would be the best one to answer that.

Craig Curtis: We do not have any figures for the amount of tonnes that might be building up, but we certainly know that it is building up. From my personal knowledge, there is lots of tonnage being offered and people trying to scramble for a market somewhere. The more mixed the material is, the less desirable it is, so it is being cherry-picked by any big processors that can use it. They only want to buy the very separated and clearest, cleanest polymers, almost separate polymers. There is not an ability to sell enough mixed-grade polymers to somewhere that can sort it out. That is very few and far between anyway.

Q22 **Mr Robert Goodwill:** Have you any idea when that problem might become unmanageable, we might see fires in heaps of waste, which does heat up on its own?

Craig Curtis: For the plastic side of things, it is very much new facilities are needed to sort the polymers. In bottles that are collected, there are so many different polymers that you cannot recycle them all together. A milk bottle has to be separate from a pop bottle; that has to be separate from a water bottle. It is very difficult to achieve that, to get it clean enough to reprocess in this country because of the cost involved in labour and properties and electricity. Again, so much of this has gone to China over the last two decades because all of those things are cheaper. Also what we must remember is that it costs the same amount of money—a very similar amount of money—to get a full load, 20 tonnes of material, to China as it does from say London to Manchester, because those containers are going back. They do not fold down, the shipping containers, they go back as a whole. It has always been very cheap, basically if you can imagine it is just not that many dollars or pounds to send a container full back to China.

Q23 **Mr Robert Goodwill:** Yes, I am a former Shipping Minister.

Craig Curtis: Perfect, you fully understand that.

Mr Robert Goodwill: A third of containers go back to China empty, so in fact it is a very cheap return journey and the carbon footprint is not that big.

Craig Curtis: The suggestion I am making is that in China over the last two decades, because they have a very cheap workforce and properties and electricity is possibly cheaper, they have always been able to make the finished product, the granules or the flake, that you can then move on to someone who wants to make anything out of plastic. The clothing that we all wear, so much of that is made out of recycled plastic, fleeces and that sort of thing. They make it better, but it is now banned completely to go there. The companies in China are distressed as well. Many of the companies in China that reprocessed the material, they have no business left at all. What perhaps is needed for the plastics is that infrastructure needs to be built around Europe—or in the United States, no doubt, because it is global—because the Chinese companies still want to buy the granules or the flake, because you are allowed to export that and they are allowed to import that, the clean flake that is ready for making into new products.

Q24 **Mr Robert Goodwill:** Are we likely to see market failure in the supply chain and problems that will come back on local authorities, who maybe are going to end up with a problem themselves? Mr Marshall might be able to—

Lee Marshall: A slight counter to that example, I am aware of one local authority that deals directly with the markets itself. It operates a kerbside sort of system, which in theory the industry would say is the best method of getting the cleanest materials out. They do not export any of their plastics or paper and what have you, but because they are a fairly small authority and they have fairly small tonnages, they have found that their domestic markets have been bumped in favour of larger customers that perhaps are fed from mers and comingled situations. They were stockpiling in their particular depot and they were probably about three or four days away from having to send the material off to energy from waste so they could comply with all their site regulations and make sure things like fire risks were minimised and what have you.

They found a domestic market, so they have been able to move their stockpiles away from their depots and keep the material turning, but they do not know how long that market may last. It is not as simple necessarily as saying things that go from mers are not going to find a market before things from kerbside sorts are not going to find a market. It depends on who your suppliers are, what contracts you have and the level of tonnages you are supplying to the market as well as to who will take what from you.

Ray Georgeson: Bear in mind that most evidence is that the ban and the restrictions do not come fully into force until 1 March 2018, although there is a lead time now. We can see some of the signals. We can see that there are more than anecdotal stories about stockpiling. There is a likelihood that this situation will become more intense here in the UK and also in the United States around March and probably into the early summer, I would suggest. I think we are only starting to see the first aspects of it. Some players in the supply chain had spotted this a little bit earlier on in the process, had listened to the warnings from China a bit sooner than others and are publicly stating that they have found alternative markets in other countries, in the Far East or in Indonesia and elsewhere. You will see from the HMRC data in recent months there is some shift of both papers and plastics to alternative markets, some shift down in recent months. Those markets are likely to saturate quite quickly.

I am not aware of any of the major players in the supply chain who have yet provided assurance that the environmental credibility of those new markets has been assured by them. I have not seen any evidence of that yet and I am looking forward to seeing it, because I think there are some legitimate questions about whether or not the working conditions in the presorting aspect of the supply chain in those countries is any better or worse than it has been in China, when you consider that it is the poor working conditions in the sub-recycling economy in China that is the primary reason for the Chinese ban. We look for those assurances and I hope they will come forward soon.

Q25 **Mr Robert Goodwill:** I think we might come on to that a bit later specifically. Could I ask Mr Marshall whether, in terms of local authority finances, they are starting to factor in the fall in prices of the waste streams they may have been selling on to a reasonably vibrant market and how that might affect council tax bills?

Lee Marshall: Hopefully they have been able to factor it in, but obviously this financial year's budgets were set in January last year, when the situation perhaps was not as obvious as it is now. We are seeing local authorities being impacted on their prices. Again, one authority has told me about a decrease of approximately £40 a tonne in their paper over the last three months while the company put in extra sorting facilities to enable some of that material to carry on going to China and maybe to find new markets. That price has gone back up again, but it has only gone up by about £20 a tonne. They have had three months where they have had a £40 a tonne decrease and it has gone back up again a little bit as this investment has happened, but it has only gone back up by £20 a tonne.

In terms of the gate fees and the income, local authorities are at the end of the line, so whatever gets passed on ends up stopping at the local authorities and it affects their budgets. It is not as simple as to say that council tax would go up as a result, because there are limits on that and that is only a portion of local government funding, but it is having an impact on local authority budgets. They cannot pass that on anywhere else, so that means they need to look at what reserves they have and whether they can manage it within that or whether they then change or even stop some of their services to reconfigure their budgets.

Q26 **Caroline Lucas:** Just a very quick one. In terms of the answer about how much waste has built up, how much there has been stockpiled, I appreciate it is difficult to be able to estimate that, because first, it is changing, and secondly, it is around the country. Is there any way of getting a kind of cumulative picture of what is happening out there, short of doing a whole series of FOIs to local councils? How do we—

Pat Jennings: We are aware that the Environment Agency has been having conversations with both Defra and the industry, looking at what conditions might require a permit extension or for stockpiling purposes. I would imagine the Environment Agency and the other regulators across the UK might be a good first point of call for that information. Certainly our members are not reporting any systematic stockpiling at the moment, but all of those acting in a commercial environment are making contingency plans in the event that they need to stockpile. I think that picks up on Mr Georgeson's comments: I do not think we have seen the full impact of this yet.

Jacob Hayler: There is always surplus material at this time of year, the post-Christmas bump, and then the Chinese market tends to slow down before the Chinese New Year. There is always a bit of surplus material, but the feedback we are getting is that there is certainly a lot more this year than in previous years, but as Pat said, it is spread around the country and it is difficult to get a handle on exactly the nature of that. Conditions are constantly changing. The feedback we are getting is that the markets have considerably tightened in the last couple of weeks. It is just very unclear, both in terms of quality and quantity, what is going to happen in terms of what material can get through.

Q27 **Mr Philip Dunne:** Just a quick question on stockpiling. Ahead of this inquiry, I was contacted by a constituent who is involved in the soft furnishings trade, in mattress production. Apparently there are stockpiles of mattresses, which include plastics, metals and other materials within them, and it is therefore difficult to break down and difficult to incinerate. The stockpiles of mattresses are apparently reaching capacity. Are you aware of whether that is the case or whether there are other products that are proving very hard to dispose of?

Jacob Hayler: Certainly mattresses are a very difficult to manage part of the waste stream. This is completely unconnected to China and Chinese issues, but they are very difficult to recycle, they are very difficult to deal with. Particularly in the south of England, with closing landfill capacity, you are finding a lot of mattresses piling up. We have been calling for more producer responsibility, the introduction of a producer responsibility scheme. I am aware that the relevant trade body—I cannot remember what it is called, something like the National Bed Federation—have set up a circular economy taskforce to look at how this specific, difficult to manage part of the waste stream could be addressed, but it is a real issue.

Q28 **Kerry McCarthy:** At the moment the UK is lagging behind meeting its recycling targets. We know it has been flat-lining in recent years. What difference will this make? Presumably this will make it harder. Yes, if people have general views on that.

Ray Georgeson: It will make it harder, the impact of the Chinese ban and restrictions. If those alternative markets do prove to be saturated and we find ourselves in a situation with serious stockpiles, there is likely to be little short-term alternatives, other than a landfill option or an incineration option. I cannot see where else you would go. If that happens, clearly it is not going to help the flat-lining recycling rates that we have seen now for a number of years. We end up in an unhappy situation, with a combination of public disillusionment with the impact of the Chinese situation and the declining recycling rate and a degree of confusion about what is best to do with the materials that people are diligently trying to collect, which leads to a serious decline in public confidence in this system. We have to address that, because without that it will create serious problems for all of us.

We all have a part to play in making this better, but like it or not—and I know the Ministers will not thank me for saying it—we do need to see some clarity, leadership and fresh strategic thinking from our Government. They will find that the industry will respond. We continually, either singly or jointly, have raised key issues with Government over a number of years. I am looking at Jacob, because from time to time we do not always agree on everything, that is true to say, but there are some key areas that we do agree on in relation to what Government needs to do to stabilise and improve market development, create stability in our recycling economy, look afresh at the way that we collect materials and look very deeply and very hard at how we can incentivise reuse, remanufacturing and the elements up the waste hierarchy that we are meant to be progressing. If we do all that, frankly the recycling rate will sort itself out, because it becomes an important part—but not the only part—of what the circular economy looks like. That surely is what we are looking for. But in the short term, we are struggling with a declining recycling rate and a diminution of public confidence that we must address.

Pat Jennings: We have a system that has some failures. The English recycling rate has been stagnating for some time and I think most of us in the industry at one stage or another have called for a number of measures to restimulate recycling. I think what has happened here is China has masked the problem. It has masked some of the failures in the system, which is the lack of other secondary material markets domestically. Recycling is about adding value. At the point where we put a plastic bottle or anything else in one of our rubbish receptacles, it has a negative value and upping that value requires investment from somewhere in the supply chain.

The incentives and the frameworks to ensure that investment is there are not appropriate. The system has delivered up to 40 years of recycling, but it is struggling and it has been struggling for some time. It really does need Government to focus on a new policy to make it fit for purpose now.

Q29 **Kerry McCarthy:** For the sake of recycling figures, once we ship something off to China, is that assumed that that meets the recycling figures, it has gone off for recycling? Is there any sort of assessment of what happens to it when it gets to China? It is assumed that all of it is?

Ray Georgeson: Yes, it does seem a bit contradictory, some of the figures. There is very little verification of what goes on in China. You will be familiar with the system of the PRN and the PERN regime notes. For exported material, a PERN is issued at 100% and takes no recognition at all of any contaminants that may be present in that material. That is not the case for a UK reprocessor, which has to issue at a lower rate, having had to deal with the contaminated feedstock that might come into the plants that my members operate. It is not a level playing field for the UK manufacturer at all.

Q30 **Kerry McCarthy:** At the moment the figures could be artificially high, because we are assuming that China is recycling it?

Ray Georgeson: They are likely to be artificially high. Nobody has verified them accurately.

Jacob Hayler: Just to come back on two points, I suppose the impact on recycling rates, our view is current policy will deliver current recycling rates. If you want to push them higher, you are going to have to do a lot more. That means intervention, particularly around demand and creating stronger demand for the materials at the back end so that the materials get pulled through the system. It is also going to need more funding so that the councils can afford to put in additional services to get this material back from householders. In the extreme, if all of the 1 million tonnes plus of stuff that has been going to China under these effective grades is no longer able to go to China, that is a big knock-on implication, when household recycling in England is about 10 million tonnes and it needs to get to about 11 million to meet the target. That is a big drag, a big proportion of that total. That is obviously going to create an additional challenge.

Just to come back on the PRN/PERN distinction, we have always supported a level playing field between domestic reprocessing and export options. I thought—and I may be corrected—that the Environment Agency looked into this two or three years ago and introduced new guidance that said that PERNs had to be subject to some sort of calculation to net off some of the assumed contamination within that material.

Lee Marshall: I think there are two different recycling rates we are talking about here. In terms of PRNs and PERNs, then you are talking about the packaging targets. When we start talking about the 44%, that is the household waste target. Local authorities have very clear guidelines about at what point in the chain they report their figures into WasteDataFlow, which is the computer system nationally. That is then used to generate the recycling figures that are reported back at a national level and a European level.

Some of those figures take account of regen through sorting and some of them do not, so in terms of that recycling level, yes, there could be a little bit of a dip depending on how much material is diverted from recycling sources. It depends what it is, so obviously if all the paper finds a market, with it being heavier, that is less of an impact than if some of the plastic does not and vice versa. It could impact negatively on the household recycling rate, but again, given that we are in the last three months of the year, relatively speaking it might be quite small. Again, it depends how much material goes out.

Perhaps to take a slightly different view, yes, the recycling rate has plateaued, but I think we are putting a slightly bleaker picture on it. This is not a 10-year thing. Local authorities and their partners have done really well in 15 years to bring the recycling from where it was to where it is now compared to European countries that perhaps took 30 years to do it and had a lot more producer responsibility funds going in. Yes, it does need invigorating and funds really are the answer.

Jacob Hayler: The other issue there is in terms of recycling rates that are reported, there isn't or hasn't been a common definition of reporting across the EU. The EU Circular Economy Package is looking to harmonise those reporting definitions. Of course that may or may not apply still. There is a certain degree of uncertainty as to whether that is going to apply to us, but I think we sometimes beat ourselves up, because I think there are some other member states that perhaps include more in their recycling figures than we do. In fact, if those were equalised, I think our position in the league table might be a bit better.

Q31 **Kerry McCarthy:** Against the targets we have set ourselves in this country, we are flat-lining, aren't we?

Jacob Hayler: Absolutely, yes.

Q32 **Kerry McCarthy:** Can I just ask about the very recent report from Greenpeace's Unearthed team? It said that in EU discussions, the European Council and Parliament were looking to set a target to recycle 65% of urban waste by 2035. It is waiting for a vote of approval by member states, but apparently the UK opposed that target. What is your feeling on that? Is that unhelpful?

Ray Georgeson: Two things first. Jacob is right to point out that the inconsistencies in the way that recycling rates are calculated across Europe is a bit of a headache and it means it is hard to take many of the figures seriously at all, to be frank. But the issue of trajectory is important. Therefore in recent years in the UK, however we measure recycling, the trajectory has been flat-lining, so we kind of separate out the two issues, because there is a messy bit of detail around the calculation of recycling rates. The UK Government is opposed to the higher recycling rate. It appears to be opposed to the higher trajectory of intensifying and increasing our recycling and it has consistently been resistant.

Q33 **Kerry McCarthy:** Why is that? Is it because it would cost money to invest in the infrastructure needed or they just have an ideological objective to targets?

Ray Georgeson: I find it genuinely baffling. We have good examples within our own shores here in the United Kingdom of how we can achieve high recycling rates. Go down the Western Main Line to Wales and you will see Wales is now reporting 64% recycling, I think. Yes, you can debate of what they are adding in their calculation for recycling, but their trajectory is going in the right direction based on a long-term Government strategy, strategic intervention around separated collection, weekly food waste, reducing the frequency of residual collection where it can be done and some activity on market development, although largely Welsh recyclate is ending up in other UK and European markets. It is a good example. Challenging to replicate that across England. Yes, challenging, but not impossible, with a policy framework that might mirror and adapt the way that our Welsh friends have gone about doing it.

Jacob Hayler: I think weight-based 65% recycling would be incredibly challenging. It is on a municipal basis, so that means that the more difficult household waste recycling can, to a certain degree, be offset by higher commercial waste recycling rates. When you look at the London modelling, for example, the Mayor has a 65% target, I think it is 2030. They are looking at trying to push commercial recycling rates to something like 85% in order to meet that target. That would require 100% capture of all of the recyclable materials in the waste stream. Whether that is credible or not, I do not know. I suspect that is not credible. It is extremely challenging, to say the least.

As an association, we have commissioned two pieces of work that we are just kicking off at the moment, which we are hoping will feed into Defra's thinking on the Resources and Waste Strategy. The first one is looking at what exactly would be the interventions required and the costs required on householders, on councils, on producers, on industry to meet that 65%. That is something that we are actively working towards just to get a baseline: what would it take to meet that target?

The second piece of work we are looking at is around what if we moved away from these weight-based targets? Because we think that they are incredibly blunt. Even the current weight-based targets distort outcomes and lead to suboptimal outcomes. Why are we collecting all of this garden waste? It makes no sense whatsoever. It is just chasing tonnage. Surely we can come up with something that is better, a system that is better, which targets the environmental outcomes more closely and is smarter. That is what we are looking at and trying to think about for the future. Can we move away from low-value recycling options towards higher-value applications, creating higher-value products from our waste in the longer term? These are the sorts of things we should be thinking about and Defra should be thinking about in its Resources and Waste Strategy.

Just to come back on Wales, yes, they report 63%. Over 10% of that is not allowed to be reported to the EU, because it does not fit the correct definition. The last time I looked, they were spending 20% more per head of population than English authorities. If you gave English—

Q34 **Kerry McCarthy:** That is not necessarily a bad thing though.

Jacob Hayler: Yes, let's give English councils £600 million for them to push up their recycling. Where is that going to come from? That is the question.

Pat Jennings: I think there is a difference here. CIWM has also called for smarter impact-based targets, because it is a very blunt instrument, the weight-based target, and it does not allow for some of the better outcomes that we now know can be delivered. But I think the Government's more wide lack of ambition or desire to show ambition in this space is something that they should be called out on. It is something that they have realised. We are looking forward to the Resources and Waste Strategy later this year, but I think that it has been symptomatic of the policy decline on waste over the last decade, that this ambition and leadership from Government has been lacking.

Q35 **Chair:** Can you just say when the Waste Strategy was announced, that there was going to be one?

Pat Jennings: I believe it was announced formally sometime in the autumn.

Q36 **Chair:** After the waste ban?

Pat Jennings: I think it was in the Clean Growth Strategy, mentioned again in the Industrial Strategy White Paper, but I think it has been in the last six to eight months that it has been formally confirmed that there will be one.

Ray Georgeson: It was only in the last couple of months that Ministers rebranded it as the Resources and Waste Strategy, rather than a Waste Strategy. We looked for the positives in that. There are some reasonably positive signals coming out of Defra Ministers. The mood music in the last few weeks has certainly changed quite significantly. As Jacob and others have said, the test is now in terms of that strategy development in the next few months. How seriously does it embrace the concepts of the circular economy and address these tricky issues of the viability or otherwise of a weight-based target for recycling, the measurement of the impact of carbon, residual waste per capita et cetera? There are lots and lots of other ways and a basket of measures that you could use to measure our success in delivering a circular economy that are better than a percentage weight-based recycling target. I think we are pretty much all agreed on that.

Q37 **Chair:** Thank you for that. I am going to move us along. There is a trend—perhaps in response to some of the work that has been done on plastics, including this Committee's work—towards retailers and brands moving away from plastics towards paper-based alternatives. How will that trend affect the UK's recycling performance, especially if the import licences are going to be reduced for Chinese cardboard mills? Obviously we are increasing the amount of biogenic cardboard and paper in the waste stream. Is that starting to filter through or is that just something on the future horizon?

Craig Curtis: I think it is just in the future. There is the thought that plastic packaging very much can be replaced by cardboard packaging in a lot of areas. The plastic packaging just tends to have so many different types of plastics that they are difficult to reprocess, so perhaps if packaging only had one type of plastic or a very limited amount. So much plastic packaging that you might get from a supermarket, it looks like one thing for a recycler, but it is a laminated product. That is two totally different polymers that are bonded together to make a nice shiny particularly lovely-looking bag that things might be in or to hold things, but they are totally unrecyclable, because it is two things that are chemically bonded together. There could be reasons for that: it looks nice on the outside, but the other polymer on the inside is to keep the food fresh or the goods in a safe manner. So much of that could be replaced by paper and cardboard packaging.

Q38 **Chair:** Don't we need to reform PRO on that? We will come to PRO, but that is the simplest way of dealing with that, isn't it?

Craig Curtis: Yes.

Jacob Hayler: If there is a switch from plastics to paper and cardboard in the short run or people are talking about biopolymers in the longer run, then that changes the nature of the environmental impacts of different waste management options. Obviously that increases the incentive not to landfill that stuff, but perhaps it makes energy from waste a more attractive option for treating that stuff at the same time.

Q39 **Mr Robert Goodwill:** Is it not the case that, as we have already heard, it was hasty to make comparisons between the UK and other EU countries? Is it the case that most EU countries responded quickly to the Landfill Directive and built energy from waste plants, whereas in the UK there was a lot of resistance among certain communities, so we did not do that to the same extent? Then the Chinese market came in and sort of rescued us from that. Is that why we are in a worse position than many other EU countries?

Craig Curtis: It could well be. I would suggest that it is, yes, particularly because the UK is an island, as we know. Almost all of the area is able to get to a port, which makes it probably more cost effective again for the UK to export to China than perhaps the middle of Germany or something because it takes longer to get a port.

Jacob Hayler: I would frame it differently. I do not think it is fair to say that we were slow to respond to the Landfill Directive. I think historically we had a much greater reliance on landfill because it was a cheap option, because of the nature of our local geology et cetera. We had further to move. Once those directive targets came into place, there was a huge shift in the investment programme and we met the targets seven years early, something like that. I think we responded pretty well when it came in.

Q40 **Geraint Davies:** Can I just ask, do we have a number on the proportion of the plastics we send to China that are, as it were, swept under the Chinese carpet and basically put into landfill? I have heard reports of basically stuff that we would not landfill here just being put on a ship, sent to China and they just put it in a hole in the ground. The Chinese are saying, "We are not having this anymore".

Craig Curtis: I do not think that is evident. Twenty tonnes has been exported, bales of plastic for recycling. That material had a high value, some hundreds of pounds per tonne, so a container was several thousand pounds. It was not taken there and just landfilled, but there is the thought that perhaps what was happening—and I think someone else mentioned it—was that the presorting facilities that might exist in China for roughly going through things, the quick throws-outs that they had, that is where the Chinese are coming from on this situation.

Q41 **Geraint Davies:** But on the difficult to recycle plastics that you mentioned, in particular the double bond and all the rest of it, the black plastic, clearly there is an incentive just to take that for an amount of money, because it is uneconomic here, claim it is being recycled and then just dump it. Then somebody eventually says, "Oh, China is a very big place. We have had enough of this. You can keep it" even though China produces it in the first place. You do not have any numbers on the amount that is just dumped?

Craig Curtis: Not a number. Financially I do not think that has been able to work. At the moment, with prices so much lower, a PRN or PERN could perhaps move, but I do not think that is the case. Over the years, that has not been the case, that material just goes.

Q42 **Chair:** They are buying this stuff for £100 per tonne, so they are clearly doing something with this when they receive it. They were not doing us a favour.

Craig Curtis: Exactly. They are spending a lot of money on getting it there.

Ray Georgeson: The PERN has been paid on 100% of the material that has effectively arrived in port in Hong Kong or elsewhere in China, so there has been a good economic incentive to send that material out. Historically, the ability of the regulatory regimes to tackle contamination in loads that have left the US and the UK and other countries has been poor. It is more than anecdotal, but nobody can put a number on how much of that contamination—which has been effectively hand-sorted in the sub-recycling economy in China—has ended up, through lack of adequate waste management, in villages and towns in China, how much of that has ended up ultimately in the ocean, through the streams and the rivers. You have seen the recent German research, which shows that 80% to 90% of the ocean plastics come from 10 river streams. I think four or five of those are big Chinese rivers. I think the only safe answer is probably zero. Definitely material will have moved into the ocean from sub-optimal sorting in China over the last 20 years, but nobody has the means to prove it. That is the situation that we historically find ourselves in.

Q43 **Geraint Davies:** If I was a seller of a load of plastic to China and of that I would say 10% of it is unrecyclable plastic or plastic that is uneconomic to include, they will sort that out and take the 10%, they will take the stuff that is worth having and they will dump the rest and we will all sort of whistle and pretend it is not happening?

Ray Georgeson: A lot of the final manufacturing in China—Craig's members—are high-class reprocessors with good technology. What goes into their gate will be very high quality, but it is what has happened to that material between arriving in the port in Hong Kong or Shanghai and getting to the paper mill or to the plastics manufacturer is where the problem has been.

Geraint Davies: That is what I am getting at.

Ray Georgeson: You have seen all the documentaries. There is too much of it to mention here, but the point is that evidence is there. It is undeniable that that has happened over the last 20 years. We, either wittingly or unwittingly, have played our part in that. Quite right that the Chinese want to stop it, but we should want to stop it too and we should want to reframe our system for the future around a more ethical, transparent system. I call it "fair waste", likening it to the Fair Trade movement. This is where we should move to, to build some fresh integrity into this resource management system that we can be proud of. What has gone has gone. We now have to do it differently in the future. I know that is something that is shared in terms of our desire for high-quality—

Chair: We are going to move on. We are getting bogged down in what happened. We have a series of questions to go through. I am going to move on to Matthew, please.

Q44 **Dr Matthew Offord:** I was going to ask some questions about the PERN and how it has incentivised exporting waste, effectively, but Mr Georgeson I think has answered that and explained why.

I turn my attention to the PRN to ask how do we incentivise people to recycle domestically instead of exporting?

Jacob Hayler: Defra has committed to look at this area. As part of the Resources and Waste Strategy, we are expecting this to hopefully form a fundamental part, a core part of that strategy. We are hoping not just for reform of the PRN, which obviously focuses on packaging, but also greater use of producer responsibility more generally to target other bits of the waste stream, whether that is mattresses or what have you. For us, the existing system does have a number of failings around the volatility, which does not help investment, around the lack of transparency in terms of how some of the stat baselines are set and in terms of forward visibility in terms of being able to plan.

What we would like to see is a system that much more closely incentivises the producers to improve the design of stuff so that it is better suitable for recyclability so that we do not have these mixed polymers et cetera. Also we want to see an element—whether that is through the PRN system or a minimum recycle content obligation or whatever it is—that incentivises the use of recycled materials and stimulates some of the demand for that stuff so that we are exporting less.

Lee Marshall: When it first came in, the PRN system was designed to do exactly that. It was to pull through investment into the collection infrastructure and the reprocessing structure, so it was designed to do that, but for various reasons it has not. It has not put investment into the collection infrastructure; it has not put investment into the reprocessing infrastructure. That is why we have had the likes of Aylesford Newsprint close, a couple of big plastic manufacturing processing places in the UK closed down. It is not fit for that purpose and it never probably has been after the first two or three years. The amount of funds it is generating just is not going to do that. It needs to change quite radically if that is what we want to happen.

Q45 **Dr Matthew Offord:** It never will though, will it, if the PERN gives the incentive that you are exporting 100% and you get credit for 100% and there might even be contamination?

Lee Marshall: From the local authority sector, when people talk about packaging reform they tend to talk about reforming the PRN system. From our point of view, that immediately puts a limit on it in terms of the aspirations and trying to fix the system as it is now. If we are going to talk about reforming systems, we need to talk about reforming the packaging system, not talking about reforming the PRN system. If we limit ourselves to that, we might get a bit of an improvement, but it will still not deliver the sorts of things we have been talking about this morning.

Pat Jennings: When we are looking at the PRN system, most assessments estimate that our packaging regime only covers about 10% of the costs of dealing with the packaging. It was designed as a low cost to business or delivery of targets at the lowest cost of business possible. The other 90% of that cost burden rests elsewhere in the supply chain, which is part of the problem we are addressing here.

The Advisory Committee on Packaging—the Government's own Committee on these issues—did estimate that the yearly PRN revenue is about between £50 million to £100 million. The Committee acknowledges it is insufficient to directly fund infrastructure or services. If we are relying on that as an investment mechanism to get funds back into the system, the Committee responsible for assessing its effectiveness has said it is not effective at doing that. They have called very recently for the system to be relooked at and evaluated as well.

Ray Georgeson: We broadly agree with the sorts of reform that Jacob and Pat have suggested in terms of tackling design for recyclability, restricting the numbers of polymers, incentivising the use of recycled content.

On the PERN, one could make a case for taking the PERN to zero and putting an onus of proof on the exporter to pay the PERN up to 100%, based on proof of reprocessing, subject to any contamination, which hopefully is not in there, because it would be illegal if it was in there. Therefore if the onus of proof is on you and you are doing a good job, you would get your PERN. Maybe there is something around that that could be looked at.

I gather that even now Lord Deben, one of the architects of the PRN system, is also now an advocate for its reform, judging by his remarks in a Sky documentary a few days ago. I am sure there is every prospect that the Government will look seriously at packaging producer responsibility reform. Clearly now we are even more sharply focused, given the China situation.

Q46 **Dr Matthew Offord:** Perhaps more of an observation on the question to you is I am aware Mr Hayler said about the Government's waste plan, but it is the 25-year environmental plan to look at PRNs, but not PERNs.

Jacob Hayler: You heard my call.

Q47 **Dr Matthew Offord:** Following on from what we have discussed, can I ask you what representations you have made to Government to encourage domestic recycling?

Jacob Hayler: We are making constant representations, as you can imagine. I suppose in terms of key messages, it comes back to what I was saying earlier in terms of we think that current policy will just deliver current recycling. If they want to shift, that they are going to have to bring in new policy and new interventions and the key area to focus on is around domestic demand for recycled materials. If domestic producers are obligated to make use of this material first, then that will automatically prioritise domestic use over export, which can then be a release valve for the rest.

What we want is clarity on the recycling rate. Are they going to adopt the EU circular economy package targets or are they going to do something else? Are they going to bring in the 2025 target and then transition to something else? Whatever they do, we want long-term clarity so we can see the balance of infrastructure that is going to be required in the future between recycling and recovery.

Whatever they do with that recycling level, it has to be realistic. It has to be supported by appropriate policy, because with landfills closing, our nightmare scenario is that they aim for the heavens with 65% recycling and they do not put in place any of the policy necessary to meet that. We miss it by a country mile, but in the meantime, because that is the target, no one invests in recovery and energy from waste infrastructure, which means that we are absolutely stuffed with piles of waste with nowhere to go. We need them to provide that clarity, that long-term vision, the supporting policy and the stability so that, as an industry, we can go out and invest in the infrastructure that we need.

Pat Jennings: It is also about focusing on innovation. One of the priorities for WRAP in its early days was looking at developing innovation R&D into new recycling options.

I know the Scottish Government at the moment is looking very closely at plastics to fuel. There are new technologies in the two decades since the Waste Strategy 2000, which acknowledged that we needed some work on the materials markets back then. There has been a huge range of innovation coming through. Again, I think the Government need to focus on supporting that innovation because UK manufacturing has slimmed down in that time too, so it is incumbent on us to find some new outlets for those materials and that will need some innovation funding and some R&D.

Craig Curtis: The Recycling Association's view is over the last two years the main focus is quality of the recycling that is baled and sent forward. It has to be the top quality in the global market, so that the UK's material is the material that anywhere would like to choose. It could be used in the UK.

The weight-based targets must be a problem. Our suggestion to anybody that is recycling anything from home or commercially, if in doubt throw it out. If you do not know whether it can be recycled, do not put it in the recycling bin because all it does is tangle up with all the good material and makes that less able to be recycled. Yes, if in doubt throw it out is our suggestion anyway.

Ray Georgeson: You asked about our representations to Government. I am sure you all have in your record collections that classic piece of cracked vinyl that keeps repeating the same phrase over and over again: in my case it would be quality, quality and quality. We have been saying that since the Association was launched in 2011, seven years now. We have a long history of representations to Government around the need for—as I said earlier in the meeting—more intelligent intervention to shape and support recycling markets here in the UK. Demand pool measures, design for recyclability, various incentives and a fresh package of policy is needed in this area.

Our most public representation on that recently was the joint representation made by ourselves, the Recycling Association, the ESA and the Confederation of Paper Industries, when we wrote to Dr Coffey in September, particularly in relation to China issues. If you read the text of that letter you will see our request was two-handed. One was to address with us the questions around the Chinese impact, but also not just for the long term, but to tackle with us the deeper questions of strategy that we are raising here now around demand for recyclate.

Obviously that is what we are looking to Government for some direction on as they review their resources in waste strategy, but truly, it is not for want of asking in recent years. I do not think any of us can be accused of being inconsistent when it comes to seeking the interest of Government in tackling this, but in recent years, it has not been a subject of interest to the Government.

Dr Matthew Offord: That is useful to have and we will now take the opportunity to put that on the record.

Q48 **John McNally:** If I could echo what you were saying, I had the privilege to chair a conference last week on waste management. Without a doubt, there is an overwhelming desire from everybody that attended that conference to get some deeds, less words and get some action into place.

You will be aware that China has gradually placed tougher restrictions on imported waste for years and some written submissions from you have described the ban as expected. I know this Committee are aware that the Chinese legislation concerning imported waste has been evolving openly along a consistent path since about 2011. In your opinion—and you will probably mention complacency or inertia later on in your presentation—could the ban have been predicted? Probably yourself, Mr Curtis.

Craig Curtis: No, the ban was not predicted at all, particularly for mixed-waste papers. We do not understand why mixed-waste paper is completely banned. If you could make mixed-waste paper at 0.5% contamination, why have the Chinese Government said they cannot put—it is not really comprehensible. It does not make sense why that is, which is a question we would love someone to find out from the Chinese Government for us, because it is a worldwide ban. It is not just the UK at all. They have changed the worldwide standard for any recycling company, any paper mill. It has been 1.5% of non-palpable contamination, which is a sensible standard, and EN643, that standard as well. But the Chinese Government have decided. I do not believe that this 1% changes anything to do with what is happening in their country as far as turning it greener or letting the sun shine through the sky perhaps. It is very strange that they have done that and we do not understand why mixed papers is totally banned.

Lee Marshall: A change in the Chinese market could have been predicted and was predicted. It is the severity and the pace of it that has taken the industry and Governments by surprise perhaps. I know we are stressing that alternative markets are hard to find, partly because the Chinese market was so big. It is always going to be difficult to replace it. In fairness, I think an element of planning has gone on and that is why material is still moving. That shows that the industry was aware that something was likely to happen and they were making preparations for it. As I say, it is just the severity of it and the pace it has come at us that has been the surprise.

Ray Georgeson: Albeit with hindsight, but I do not think anybody has expected it to be quite as dramatic at quite the time that it came. That said, if you look back over five or six years of the history of interventions from the Chinese Government, going back to their Operation Green Fence, I think in 2012 or 2013, the signals have been there for some time in terms of their desire to clean up the recycling process at home.

The points that Craig makes about mixed papers down to 0.5%, why should they have an issue with that? If you can get the quality there, there should be no issue at all. The bigger issues I think lie in the plastics supply chain and some of those poor sorting and backstreet operations in China that they are now shutting down. They are going around shutting down backstreet reprocessors and recyclers, the family businesses and the small brokers. That is where the serious pollution issues may well be and probably less so related to the fibre trade.

The fibre trade has been caught up in the mood, I would suggest, but that was part of why we were keen to have the Government work with us to make representations to the Chinese back in September, but that request did not find favour with Ministers. We received a reply from Defra about a month after our public call for some support—

Q49 **John McNally:** Do you think you pushed the Government hard enough for action? Do you think you, as an industry body, should have been pushing the Government harder?

Craig Curtis: Yes. There were requests for meetings, meetings happened and nothing really came after that.

Ray Georgeson: What we are seeing is a monitoring situation going on with very little obvious intervention supporting anything that we are trying to do in the industry. It does not help us because we are more powerful if we have our Government working with us in the nation's best interest. While Ministers and ourselves were playing table tennis with correspondence in September, the Americans had a trade delegation and a Minister over in Beijing. Whether or not it made any difference, I am not quite sure, but the point is they were seen to be batting properly for their side at the right moment.

Craig Curtis: They may perhaps have a two-month stay from January to 1 March.

Q50 **John McNally:** I just want to come back on one more point. You mentioned Wales earlier on. They were praised last week for the action that they have taken. I would like to hear a wee bit more about the devolved Administrations, how they have reacted to this ban. Have they acted quicker? Are they more flexible?

Lee Marshall: On a general level, the materials are traded on a UK basis, so even though Wales and Scotland have devolved powers over that, material flows are very similar to those of England. There are the same sorts of issues there for Wales and Scottish local authorities as there are for English local authorities.

What you tend to find, more so in Wales—I am more familiar with Wales, as I used to work there and still live there—is the material tracking is more rigorous. The Welsh Government require more vigorous end of destination reporting than perhaps the English authorities are subjected to. You can track that a bit better, but ultimately it is a UK problem in terms of the material flows.

Pat Jennings: We had conversations with both the Scottish Government and Welsh Government on the back of this. The Welsh Government have surveyed their local authorities to find out what impacts they were expecting, so they had proactively gone out to find out what was happening. Also they have come back and said that because there is a high degree of separation in Wales, you are getting high-quality materials and a lot of them are going to UK reprocessors so they are not anticipating at this point in time a significant impact. Scotland is likewise keeping a close eye on what is happening for Scottish local authorities, so I think you see on behalf of the devolved governments a level of engagement. I appreciate there are differences in scale in the number of local authorities, but a direct engagement in this issue that I do not think we have seen from their English counterpart.

Ray Georgeson: This is one occasion where it would have been perfectly reasonable for the UK Government to make its representations on behalf of all the nations of the UK, including the devolved governments. It would not have needed separate interventions from Scotland, Wales and Northern Ireland.

Q51 **Chair:** We have had the Ministers in front of this Committee. We heard from Dr Coffey on 31 October, who talked about the discussions with the World Trade Organization and the Chinese Embassy, and described the restrictions as "a good challenge". The next day we had the Environment Secretary, who was not aware of the ban, but then when he was made aware by us and his officials in the meeting said, "I do not have any worries". What is your response to those, "a good challenge" and ""I do not have any worries"? What do you say to that?

Jacob Hayler: It is a huge challenge. I think there has been a big shift in the level of concern, in terms of on the ground markets tightening, the full impact of the restrictions coming increasingly to the fore, which might mean we might need to revise some of those views.

Q52 **Chair:** Do you think the Environment Secretary has revised his views? Have you seen any evidence that he has?

Jacob Hayler: I have not yet.

Ray Georgeson: In fairness to the Environment Secretary—I cannot believe I just said that—he convened a plastics round table just before Christmas. He is publicly getting very exercised about the plastics issue, as indeed we are. The phenomenal mood music change, the sea change that is happening as a result of "Blue Planet" and increasing awareness of ocean plastics does appear to have caught his attention. Let's be generous and optimistic and hope that he has it. If you were being generous, you might say when he was sat here in front of your Committee, it was a genuine moment of, "No, I have not really thought about that". Had he been briefed? We do not know, but we have certainly made him and other Ministers aware subsequently and we now look to some action.

WRAP convened a roundtable on China, I think at the instruction of the Government. They also held one in Belfast and Canada and I think Scotland was managed separately. There were a number of stakeholders around the table for that. A lot of the problems and the challenges were aired. I know an action note was produced by WRAP after that meeting, but I am not aware—

Q53 **Chair:** When was that meeting?

Ray Georgeson: That was the back end of November. I do not know whether that note has been put in the public domain or not, so it might be something that you would ask WRAP for. I am not sure that I am at liberty to share it. There are some actions in there. Equally, they are also sharing the concerns that we are expressing about the long-term need for a fresh policy framework and market shift. Interestingly, the chief executive of WRAP is on the record now quite clearly stating that he believes the time has come for a separate collection of fibres, and quite probably the comingled recycling system is no longer fit for purpose for the next generation.

Jacob Hayler: Just to be clear, I was limiting my previous comments to specifically talking about the China export issue. In terms of the Environment Secretary's attention on the sector more broadly, like Ray, I think we have been hugely encouraged by the 25-year ban and the emphasis that that placed on some of the resources and waste issues. Even as recently as three, four, five months ago, we would not have expected that degree of attention placed on this topic area. We can speculate as to what has been the big driver that has led to that increased focus on our sector. Yes, I would echo a lot of what Ray is saying.

Also we should remember in terms of what the Government can do in the immediate term, it is quite limited. What we need them to do is focus on what they can do in the medium to longer term, in terms of all of the fresh policy ideas and interventions that we have been talking about, in order to create a sustainable solution for the management of these different material streams.

Just to come back on the separate collection point, if you collect mixed paper from the household, whether it is on its own or mixed with something else, that is not the key issue. That is still mixed paper. Even if it is from a source separated, multi-stream collection system, that is still going to struggle in exactly the same way as paper that is collected from a comingled system. The two key points for us are it is not how the material is collected, it is what is collected. That mixed paper contains newspapers and cardboard, which is great. We can ship that to China.

It also contains cereal packets, envelopes, bits of letters and all sorts of other stuff that effectively acts as contamination, which makes it more difficult to shift that grade given the introduction of the new system. It is about what we collect and it is also about engagement with householders and stopping non-target material being put out, because local authorities' budgets, as we all know, are incredibly strained. That means that communication to householders perhaps is not as big a focus as it has been in the past. Certainly the experience of our members is that contamination levels are going up on the front end and then you have the quality spec on the back end being tightened, which means that there is more processing cost in the middle and the economics of it are becoming increasingly strained.

Q54 **Chair:** Are you saying that we should not put our cereal packets in a comingled collection then? No, you are not, are you?

Jacob Hayler: From our perspective that would be great, do not put it in, but the problem is householder expectation has now been created in terms of people expect this service to be delivered and this material to be taken away and recycled. In terms of plastics, pots, tubs and trays, they are an absolute nightmare for most of our members. They would prefer to focus on plastic bottles for which they have strong end markets.

Chair: Thank you. We are going to move on.

Q55 **Alex Sobel:** We have covered some of this but, Jacob, in your last response in terms of the Chinese ban, you said there were not many immediate actions the Government could take and they should concentrate on medium to long-term actions. That is what you said, but are you satisfied about the Government's actions arising from the ban after the meeting in September, for instance, on issues such as stockpiling? Have the Government put in place sufficient measures?

Lee Marshall: The comments the Chair outlined earlier on show that Defra were very late to it. There is a feeling that they have been running to catch up, so a lot of that has been about information gathering. They are coming to us and asking us what the impacts are on us, rather than perhaps us then being able to ask them, "What have you been able to do?" As Jacob said, maybe they cannot do much, but you would like to see them try to do what they can do. It does not feel as though that has been there, to be honest. They are very aware of it now, but the three-month period where they have become very engaged in it has been as much about them getting information from us as them being able to do anything or appearing to be able to do anything more.

Q56 **Alex Sobel:** You are saying it is both lack of preparedness and then a subsequent lack of action currently, yes?

Lee Marshall: It feels that way.

Ray Georgeson: If stockpiling proves to be a severe headache for the UK in the months that follow, the industry will need support—particularly from the Environment Agency—in relation to licensing, storage and all the measures related to that. I do not think any of us will be saying this very comfortably because everybody is quite rightly concerned about excessive stockpiling of any kind of material, for good housekeeping reasons, fire prevention issues and all the rest of it, so that needs to be carefully worked through with the Environment Agency. I am sure that will happen at the point at which it is needed, but it would be better to be anticipating it now rather than wait another two or three months and then it turn into a crisis meeting. Let's have a bit more considered planning around that.

Separately—and I float this as a thought—I wonder if a point might come, particularly in relation to plastics, where we might need to consider dry storage in landfill of washed plastics pending market development of technological solutions to deal with it. As we all know, the carbon benefits from plastics accrue more from recycling than they do from losing it through one trip through an incinerator and away. While that might well be a short-term solution for some of that material, maybe we should be thinking longer term about how we hold on to that resource and utilise it more effectively a bit further down the line.

Pat Jennings: One of our concerns is certainly if stockpiling starts to happen and markets become tighter, there is a risk of illegal activity. Illegal waste sites are already a significant issue for the sector. We know that as fast as Environment Agency closes down an illegal waste site another one pops up. The Government and the regulator need to be mindful of this and the appropriate resources put in place if we can see that stockpiling issue becoming more apparent, because ultimately it leads to the risk of not only illegal waste sites but flies and pollution incidents. That does need to be part of the forward-looking policy.

Also CIWM, in and of itself, is not as close to the markets as my colleagues here, but there appears to be a degree of uncertainty about quite how this is going to play itself out, what will happen. Will there be another round of import licences? There seems to be some uncertainty about what comprises contamination. There is very little guidance coming out of China, so the Government could provide a useful role in trying to establish a dialogue with the Chinese authorities, to bring a little more clarity as to what some of these rules and regulations are going to look like and what import licences might be issued in the future.

Jacob Hayler: To be fair to the Environment Agency, they have been reasonably proactive in trying to understand what the potential impacts might be and what regulatory measures—whether that is relaxing storage capacity limits or whatever—might need to be put in place to try to manage the situation as best as possible.

The problem they have faced, along with everyone, is it has just been so uncertain. Different people have been getting different feedback and different market players are in different positions. We just have not understood the exact nature of the problem, which has hampered some of their ability to plan for it.

Q57 **Geraint Davies:** Moving on directly from that comment then, do you feel that the ban has generated more market fragmentation, more cherry-picking and less collective action? Where do you see the leadership? In contrast to what Mr Georgeson said about storing difficult to recycle plastics until a day emerges when we can recycle them, why don't we just ban certain plastics and tax hybrid packaging, for example? But can you answer the first question first, which is: is there fragmentation, cherry-picking and should we take bold action rather than sitting around hoping it will be all right?

Jacob Hayler: In terms of fragmentation and cherry-picking, I do not know. The knock-on implications: if you take a big chunk out of the market then that will have knock-on implications for everyone. For example, Mr Marshall was referring earlier to councils that thought they might be more insulated from the Chinese pressures because they are not going directly to China, but their material is subsequently being displaced as material is being pushed further back down the chain.

Sorry, what is the second question?

Geraint Davies: If there is cherry-picking and fragmentation, should there be bold action to take out some of the problem, like banning certain plastics and hybrid packaging?

Jacob Hayler: This is a timing thing, so that is not going to resolve the immediate impacts of what is happening in the market right now. That is something to think about, end resources and waste strategy. Those measures should be considered, certainly in terms of rationalisation of polymers, and we know that the retailers are doing a lot of good stuff around thinking about how they might improve the packaging that they place on the market to make it easier to recycle. That all has to be part of a holistic solution, but that is for the medium to long term.

Lee Marshall: In the short term it is a market-based operation, so the market will sort itself out, as I said. We have a local authority that does source separation. In theory, it is really good material. It was only supplying the domestic market and they are finding themselves squeezed because they have small amounts of material in comparison to perhaps some of the bigger waste management companies who do more.

The markets will look after the contracts they want to. They will keep the contracts that are valuable to them. They may—dare I say—look to readjust some of the contracts that they feel they can readjust, so rightly or wrongly, the market will have to sort itself out in the short term. Again, some of the things you are talking about longer term, definitely we need to see those if we want to try to even out some of these problems with the market and the spikes that they cause.

Q58 **Geraint Davies:** Can I ask, is there a problem that we are not addressing here at all of the global market, where basically China produces more plastic than anyone else, about 30% of world plastic, and spends billions of dollars on fossil fuel subsidies? Globally there are enormous fossil fuel subsidies, plastic is cheap, China brings all this plastic, it just sends it over to us and we are wondering what to do with it. Isn't there a bigger issue about perhaps making plastic more expensive?

Lee Marshall: I would not disagree with you, but how do you get that at a global level? Going back to the sector I represent, a small district council in the middle of England somewhere with their kerbside system, trying to get the public to put as much in there, what impact are they likely to have? How can they influence that sort of global conversation? They cannot. Councils are at the end of the chain, which is why it was a bit disheartening to hear the Minister's comment about it being "a bit of a challenge". It is a problem for local authorities. We are seeing income cut. That means they have less money in their budgets this year than they planned for, that they have to readjust somehow and they cannot go out and find a new market and find new income. That means a change in the services they provide to their citizens. We are at the end of the line as far as these impacts are concerned. We would love those global solutions to happen so that that insulates local authorities a bit better and it means that—

Q59 **Geraint Davies:** If we just banned certain plastics and certain hybrid packaging or taxed it or something, we could do that without the global stuff?

Lee Marshall: We could do in this country, yes.

Q60 **Geraint Davies:** You would support that?

Lee Marshall: We would support proper, well thought-out interventions that stimulate the sort of outcomes we want.

Chair: That is not the same as supporting a ban.

Q61 **Geraint Davies:** Yes. Does anyone else support a ban of certain plastics or hybrid packaging?

Ray Georgeson: Government always has the ability to curb the worst excesses of the free market through speculation, fiscal measures and policy for the benefit of the public.

Geraint Davies: Good.

Ray Georgeson: That is the job of Government, so there are elements in which either banning or having mandatory recycle of content or having mandatory design guidelines around polymer use and recyclability could help shape a new market here in a perfectly legitimate, intelligently regulated way. It does not have to be the heavy hand of the state directing what every business does, but the use of intelligent regulation and measures to create public good.

You described the situation of the Chinese fossil fuel subsidy and the effect of that. They are subsidising fossil fuels and the impact on us is we cannot realise the carbon benefits from our recycling because we cannot manage our recycling as effectively because of all that cheap plastic. It becomes a double lance and somehow we have to try to get more control over it ourselves, while recognising our place in the global economy. That should not stop us doing what is right for us, if that means some fiscal measures or some banning of certain products, greater incentives for reuse and product life extension and the elimination of some of the other nonsense that everybody is getting fed up with, like plastic stirrers and all the rest of it. Folk are getting fed up with that now. It is time for a change.

Q62 **Geraint Davies:** We can tax plastic and make some money and push the market into renewables and have a better world. Why not do that?

Ray Georgeson: Yes, but the point is that the Government has the task of researching this properly and regulating it intelligently, so that you do not have another raft of unintended consequences of what might be a well-intended policy. In principle, yes, why wouldn't you look to eliminate from the economy some products that appear to be doing nothing other than causing environmental harm and have the most short-lived of benefits? Surely we can find another way to stir our coffee, for example.

Geraint Davies: Yes.

Mr Philip Dunne: Sorry, I think that is a no, Geraint.

Geraint Davies: I thought it was, yes, we should put a ban on all of this.

Q63 **Mr Philip Dunne:** Looking at the short term—and we have been discussing this around the houses a bit—it seems that from 2014 the Hong Kong market receiving recycled plastics started to decline and China started to reduce from 2015, obviously much more rapidly recently. Other developing countries have been picking up the slack in terms of taking exports, so Turkey, Vietnam and Malaysia seem to have been increasing. Do you think in the short term finding alternative export markets for waste products of these kinds is sufficient and is a realistic alternative to China?

Craig Curtis: I do not think they will be able to take the volume that the worldwide community have been sending to China. That is short term. Plastics recycling facilities do not have to be a massive, enormous plant. They can be a normal regular factory size. There are two companies I know that we were selling to in China that are relocating their factories to Vietnam.

Q64 **Mr Philip Dunne:** Are those countries adopting better standards in terms of the waste hierarchy than China has adopted, do we know?

Craig Curtis: The material that is exported to these companies, they are all very, very particular on what they buy. It is difficult to put any information as to where the less clean materials come from, but I definitely know that there are companies that had a big investment in China and the product that they make in Vietnam is the finished granules or flake that they will drive back into sales to their customers in China.

Q65 **Mr Philip Dunne:** Is there any evidence that any other countries in South East Asia, for example, are following China's lead and looking to ban receipt of this material?

Pat Jennings: There are certainly anecdotal reports and media reports suggesting that there is quite a push in places like Vietnam to not become a dumping ground for plastics that were going to China. There is pressure on them from officials to at least begin to mirror the standards that China has put in place. Also for all exporters of these materials, it behoves us to ask ourselves whether it is simply sufficient to look for alternative markets without taking into account whether in a sense we are replicating the challenges that have led China to come to this point.

In terms of Ray's earlier point about our behaviour from an ethical perspective, we do need to do some more research into the environmental standards in these markets, but I do think that there is a groundswell of opinion. They are not stupid. They have seen what has happened in China and I think there will be at least higher quality standards being talked about.

Q66 **Mr Philip Dunne:** That takes me neatly on to the next question, which is if the other export markets are not going to be able to cope with the volume, we need to come back to looking at what is happening in this country in terms of processing capacity. You indicated in earlier discussion that the market value is somewhere in the £50 million to £100 million range—I am not sure whether that was in relation to plastics or cardboard or both—and you indicated that the market as a whole in the UK is not large enough to sustain substantial reprocessing capacity, because this is globally-traded product and we are a small part of the global market. Is there work being done by any of your organisations to look at what kind of measures could be realistically done commercially in this country to encourage reprocessing facilities to be raised here?

Pat Jennings: CIWM is currently in partnership. We run an annual conference with the Resource Association, with WRAP and with ESA. We are currently looking at a research brief to explore plastics from the perspective of stimulating secondary demand. It is at a very early stage, but that is a piece of work that we hope—

Q67 **Mr Philip Dunne:** Is that supported by the Government's Industrial Strategy? Is there a strand in that that would support this kind of work?

Pat Jennings: Yes, we are certainly mindful of the commitment in the Industrial Strategy to improving the UK's resource productivity. As part of that, we will frame it within that discussion because the whole point of structuring better secondary resource markets in the UK will be to strengthen and make more resilient the UK economy, particularly post-Brexit, because there will be some opportunities there to change.

Ray Georgeson: The final published version of the Government's Industrial Strategy was much more positive from our perspective than the earlier versions. There were some clear messages in there about the value of resource efficiency and the need for more action on recycled content, for example, and to encourage the market.

There has been a long-term trend in the UK of loss of manufacturing. Yet despite that, even today—certainly on the fibre side—we still produce just over 3 million tonne of papers, but we are consuming about 8 million tonne. Certainly I can only speak about my own members, but even in the last 10 years, in the face of all this market challenge in terms of the Chinese export market, the PERNs, the poor quality of material that comes out of the municipal waste stream, my reprocessor members have still invested more than £1 billion in new mill capacity, upgrades, refurbishments and so forth in their UK plant in the last decade. That is in the face of some severe economic challenges.

Mr Philip Dunne: £1 billion did you say?

Ray Georgeson: Yes, more than £1 billion. At the end of the day, if the market signals are strong and the policy framework is strong, the likelihood of future investment is higher. It is never guaranteed, but yes, we can build ourselves better prospects if we put the right packages in place that encourage investment. You would find that the manufacturing side has an appetite to do that, which is why we were encouraged by what finally came out in the Industrial Strategy.

Q68 **Mr Philip Dunne:** It has worked very well in other sectors, hasn't it?

Ray Georgeson: Yes.

Q69 **Mr Philip Dunne:** I am more familiar with the aluminium sector than I am with paper, packaging or plastics, but there the emphasis has been on the producers finding they have a more valuable end product, easier to process and all that. I understand that. But a combination of a policy development, a priority to dispose of the alternative disposal methods and some innovation in identifying products that could be generated to use this waste product, all should be moving in the same direction, it seems to me.

Jacob Hayler: Absolutely, everyone agrees. We need more investment, more support to encourage investment domestically so that we can use more of this material domestically.

Going back to the question, that is not going to help in the next three weeks, three months, six months, 12 months, what have you, because it is going to take time to put that in place. There are very different drivers on the fibres and the plastics. On the fibre side, notwithstanding all that excellent investment that Ray's members are making, it is unlikely that we are going to develop the new paper mill capacity to treat all of that material domestically, so I think the Industrial Strategy should look to other options, whether that is biowaste to chemicals. We have the Bioeconomy Strategy coming out next month—still next month—so there are other options that could be explored to see how we can use that, close the loop on that material here in the UK.

For plastics, it is the volatility of the end market and the vagaries of the oil market that has led historically to companies struggling, so let's get some proper support for plastics reprocessing here in the UK that underpins that investment and means that when the oil price drops they do not all go under.

Q70 **Mr Philip Dunne:** From your discussions with Defra, do you believe that the resources and waste strategy is going to be looking at these issues?

Jacob Hayler: I believe certainly the 25-year plan flagged a much greater emphasis on secondary market materials, so we are expecting that to form a centrepiece of the strategy. They have been signalling that they are interested in more producer responsibility reform, so we are certainly hoping that this will form a centrepiece of the strategy when it comes out.

Q71 **Mr Philip Dunne:** Final question, Chair. Are there any other measures that you would like to recommend to the Government to include in that strategy or to help to develop—I take the short-term problem—some medium-term, longer-term solutions that we have not talked about?

Ray Georgeson: One I have not talked about that I will mention very briefly, we have talked right throughout this conversation about the sorts of packages of measures that need to combine in the new policy framework. Given the context of this session on China and the questions about transparency—I am back on another one of my cracked vinyls, I am afraid—this is the issue of the end destination of recycling and public transparency about what happens to recycling, where it goes, and the challenge for both the local authority side and the supply chain to publish better information for their residents about where their material goes and what happens to it. That is one that still has not been met.

We organised a voluntary charter five or six years ago. Around 80 local authorities have signed it. It has not taken off because there has been a lot of resistance in the supply chain to providing information. In Wales they have made it statutory. In Scotland they have not and I think Scotland needs to look again at whether or not it would do that. It would be very simple, almost a one-clause Private Member's Bill—if any of you would like to take up the challenge of statutory reporting of end destinations of recycling—which would come at almost no cost and would have a significant benefit in terms of increasing the public's confidence in the process in terms of what happens to the stuff and where it goes.

Pat Jennings: If I can add to that, building on Ray's point, I think communication is one of the areas where spend both by local authorities and by central government has declined significantly. That is partly being seen in the rise in contamination and in an increase in people's doubt about whether recycling is a worthwhile activity. We have a watershed moment with the public, particularly with the marine plastics, disposable coffee cups. It is right there in the media, right in front of them.

If we do not make sure that that strategy does have some policy to improve and to support greater communications—much like the original Recycle Now campaign—then we will not only have missed a trick, but also, if the public does not see some more visible action and does not hear back as to what is being done and where the recyclables are going, we might see a bit of a crisis of confidence, particularly as they will read about the China exports, so we do need to bolster the public perception that recycling is a valuable activity.

Lee Marshall: Just on that, we do need that and local authorities who sign up to that do find trouble, sometimes being told that the information is commercially confidential so they cannot fulfil that objective, but we need to be careful about unintended consequences.

There is a survey that RECOUP does annually. One of the questions it asked last year and the year before was—and this was a survey of the general public—"Would you prefer that plastics were burnt in the UK or recycled abroad?" The greater one was, "Burnt in the UK". Therefore great, let's get the end destinations in there, but there needs to be a more intelligent conversation with the lady and the gentleman on the Clapham omnibus about where these materials go, that there are legitimate markets abroad and why they go there, before we just start saying, "Yes, we take it all over there". Because at the moment, with the public mood and the marine plastics and what have you, there is a danger that if a council tells their residents that it is going to a legitimate place abroad, that may be seen as a negative rather than keeping these resources in economic use.

Q72 **John McNally:** For your information, I would like to say that the Scottish Government was presented with a Circular Economy Governments, Cities and Regions award at the Circulars Awards held at the World Economic Forum annual meeting, so we are doing quite a lot of good things, but I am absolutely sure there are other things we can improve on. Thank you for allowing me that, Chair.

I would like to move back to an answer and a comment that was given earlier on by Mr Hayler. You mentioned that the comingled collection system, which is used in most local authorities, made exporting recycling material a necessity. Could you tell us a wee bit more about that and is there a future for comingled collection if the UK does intend to move towards domestic reprocessing or would the UK have to continue to rely on foreign markets?

Jacob Hayler: Looking at it from the perspective of the local authorities, when they are putting in place their waste services for their householders, they are trying to marry up or trade off three conflicting objectives. The first of those is to raise environmental standards as high as possible and to recycle as much as possible. The second one is to provide a service to their householders and to maintain a level of service to their householders, who have certain expectations, which may not always marry and in fact quite often do not marry necessarily with the first objective. Then the third objective, they are trying to maximise the first two and then they are also trying to minimise cost at the same time, so balancing those three conflicting objectives can involve some very difficult trade-offs.

From our perspective, you look at the reports of poor-quality material that is going into export markets. The Sky documentary was mentioned, where a particular council's plastics have been found in Eastern Europe. That came from a multi-stream collection, so a comingled collection was not the source of that issue. Similarly, as I mentioned earlier, mixed paper is mixed paper, whether it is in a bin on its own or whether it is in a bin with plastic pots and metal cans. It is still a mixed paper stream that is not wanted by the end destination.

For us, the two big issues in terms of affecting quality are, first, it is not how you collect the stuff, it is what you are collecting. Maybe we should be focusing on the particular material streams for which there are stronger end markets, so PET, HDPE on plastics, cardboard, as I mentioned earlier, and newspapers when it comes to fibres. Then the second issue is around people putting out non-target material and that can happen, regardless of the collection system.

We feel that local authority budgets have been under tremendous pressure, lack of communication, lack of engagement with householders, which is leading to higher levels of contamination going into those receptacles.

Lee Marshall: To follow up on that, you can get good-quality material that the market will take from comingled. You can get it from kerbside, as I think Jacob has highlighted. We have become too bogged down in the UK about how we collect it rather than what we are collecting. Even in the kerbside sort, it is just the sheer difference in the material types.

I am a bit of a waste geek. I photographed my kerbside box that I collect my cans and my plastics in. I separated those out into 14 different material types. I am not a plastics engineer so I may have missed a couple. All these materials need separating out from each other at some point in the chain. In effect, you can put it all in one bin and try to recognise it further down the line. You can start to get the public to do some of it, but it still needs sorting further down the line. The sheer breadth of material types are causing an issue in terms of collection and sorting.

Going back to an earlier point, if we start to rationalise the materials that we use in these products, that starts to make the sorting a lot easier for comingled services, as well as kerbside sort. It is not as simple as saying, "Comingle bad/kerbside sort good". A badly-managed kerbside sort system will not deliver potentially as good a material as a well-run, well organised comingled system.

Just on the comms, yes, local authority budgets have been stretched and savings have had to be made. Typically comms has been seen as an area potentially that savings can be made because it is not the frontline service. It is not the blokes and the ladies collecting the actual material, but it has an impact and councils are starting to realise that and trying to reverse the trend.

Generally speaking, most of us would probably say we know what we can recycle in our area so the confusion generally is not about what we can recycle in our area. For example, my parents live in a different part of the country and because I am a waste geek, I will talk to them about what they can recycle and they may be able to recycle a different type of plastic to me. The confusion then starts to be generated about why they can recycle that, but I cannot. That said, generally most of us would say, "Yes, I know roughly what I can recycle in my own area".

But yes, local authorities have been pushed on their budgets and they keep the trucks going. They keep that service going, week in, week out, but sometimes that has meant the comms budget has been cut, but they are trying to put money back into that, but again, where does that come from? Leisure, social services or education? It has to come from somewhere else.

Q73 **John McNally:** That was very interesting. People do want to be led on this, of that there is no doubt, and people are trying to recycle from a very basic point of view.

Just last week, I cannot remember the chap's name, but it was at Canary Wharf and they put out a whole bin structure. They described the situation, where two or three people came down. They looked and looked and looked at what to do and they ended up just throwing the whole lot into one bin because it was too confusing for them, so I would quite like to hear a comment on how we educate people from the very beginning.

Lee Marshall: It is difficult. To a certain extent, recycling is not important enough. I would say over the last 10 years the public have become very much more aware of recycling, which is really positive, and they understand that they should be doing it. You will see surveys that say 80% of people say recycling is very important, but when you translate those figures back into the participation at the kerbside, it does not translate. We get drop-off and it is not because everything is so confusing. People use that as an excuse to say, "Recycling is only so important to me" and that is where we start to get the drop-off. Yes, there are problems and it tends to be around some of the plastic polymers. Most people understand that, yes, the plastic bottle can go in, your paper, your card. It then starts to get around to pots, tubs and trays and is it PET, is it PP, is it RPET, CPET. That is where the differences come about.

Again, the councils are hamstrung by the end markets. We have an end market saying to a council, "We only want that type of plastic". That is the message that council has to give back. For argument's sake, a council may have let their contract three years ago and at that time certain materials could be sorted. Three years hence perhaps the facility there that their neighbouring authority takes the plastic to, they have had an upgrade in the sorting material so they can now take more types of plastics. An authority that perhaps lets a contract today may have access to different sorting and more advanced sorting. There are all those elements in there as well as to what a council can and cannot take at any particular moment in time.

Q74 **Geraint Davies:** Two quick questions. First, could we sort some of these problems if there was selective tax on particular plastics, so manufacturers basically said, "We will not do those anymore" so we have less plastics and more recycled plastics?

Secondly, do you think that the Government should put the onus on the retailer, who is basically the gateway for a lot of this packaging, and if we put the charges on them or the responsibility for recycling on them, they would say to the producers, "Change your packaging because we are paying for it"?

Chair: I think that we have covered the first question, so if you could keep your remarks to the second one.

Lee Marshall: On a simple level, yes. If you start to rationalise the types of plastics that need sorting that helps all the way through the chain. It helps in our communications to residents. It helps with the end market. To a certain extent, what you are talking about is just producer responsibility. You are starting to see—I think because of the likes of the "Blue Planet" and the groundswell of public opinion on this—over the last three or four months retailers starting to look at how they move out of black plastic, for example, into clear sorts of plastics or how you go about identifying black plastics in the sorting facilities. But again you have to think about unintended consequences.

There has been a project that injects a dye into the black plastics so the infrared equipment can read it and it puts it out. A lot of these trays are HDPE and they get put out then into the HDPE bottle mix. The HDPE bottle mix needs to be nice and clear for its end market, so you have solved one problem, but created another. Unfortunately it is—

Q75 **Geraint Davies:** The retailer has been paying the price. That is what I am saying, so they have to hit the producers.

Lee Marshall: The producers throughout the chain, as Pat alluded to earlier on, has been shown. The producer responsibility scheme in the UK for packaging producers in their entirety contribute about 10% of the cost of collecting and recycling this. The other 90%, household waste by default, falls on to the local authority. Producers will tell you they have the lowest cost system in Europe. They have to them, but not to UK plc because the local authorities are picking up that burden. We want to see that shifted quite dramatically, but we appreciate retailers/producers will say, "Hang about, that is a big burden on us". That is unfortunate because we are starting from a very low cost base for them, but it does need to change if those sorts of things are going to happen.

Pat Jennings: If I could add on the producer responsibility and phasing out designs that are not easy to recycle, other countries are doing it. France has a bonus system for its plastics packaging, where if your plastic is multi-polymer, difficult to recycle, has caps that are different material to the container, you have an increased obligation under the producer responsibility than if your designs are more recyclable and easier to manage through the supply chain, so it is being done. It can be done. It is a case of having a modulated producer responsibility package that incentivises the good behaviour and penalises the bad behaviour.

Q76 **Chair:** That was one of our recommendations from our plastics and coffee cups report. Just on that, we recommended a deposit return scheme as part of our drinks bottle reports. Does that now look like an urgent need in the light of the China waste ban and the plastics that you have been talking about?

Jacob Hayler: It is a different scale and it is a different issue. The deposit return scheme for drinks containers may have a role to play, particularly if it is targeted at on the go style consumption and if it is considered as part of a complementary suite of measures in the Resources and Waste Strategy. It is something we think the Government should look at and work out the costs and benefits. There will be costs to the producers, drinks manufacturers, whomever, in order to implement a scheme. Are those outweighed by the benefits in terms of litter reduction and additional capture of material for recycling?

Q77 **Chair:** Less contaminated capture as well.

Jacob Hayler: Less contaminated capture.

Lee Marshall: In terms of plastic bottles, I think it is 99 point something households in the UK have plastic bottle collections at the kerbside, so if we are going to look at DRS, our opinion would be focus on the go. Focus on the smaller plastic bottles that tend not to find their way back to the household, where the householder has the ability to recycle it. Let's focus on some of the smaller items that are disposed of on the go. Let's get those, first, away from being litter, and then secondly into new recycling systems that a deposit return scheme could fund, so that again we keep them in economic use.

What we would be concerned about with a blanket DRS is then the impact on local authorities again. Despite what we have heard today, sometimes we do receive income from material. If that then goes, we do not believe at the moment the evidence shows that that would be offset by efficiencies in the collection service, especially if you look at what is in scope and out of scope of plastic bottles, so again, unintended consequences. DRS does improve recycling rates and can improve quality, but if that is at the expense of council expenditure, again we are shouldering the burden of producer responsibility in just a different way.

Pat Jennings: DRS does work and has been shown to work in a number of other countries, but one of the things we need to consider is that it was, by and large, put in as part of a much bigger systemic change. The whole system was designed and that was a complementary element of it, and—as Lee said and also Jacob—bolting it on to an existing system does run the risk of unintended consequences. It runs the risk of picking up material that has already been picked up somewhere else, so literally diverting it into a different sort of collection process.

All of this is something that the Government should look at, but there needs to be more careful analysis of how it could be implemented. On the go, those plastics that are not collected at the moment and do end up as litter, that does need to be a very clear focus of that.

Chair: Okay. We are going to have to close the session now. Thank you all very much indeed for coming. We really appreciate your time and look forward to seeing how this situation develops, hopefully in a positive way.