Cities in Recession: Urban Regeneration in Manchester (England) and Osaka (Japan) and the Case of ‘Hardcore’ Brownfield Sites

Report Produced by:
Professor Tim Dixon (Oxford Institute for Sustainable Development, Oxford Brookes University)
Dr Noriko Otsuka (University of Basel) and
Professor Hirokazu Abe (Osaka University)

Research funded by RICS Education Trust and Kajima Foundation
MAY 2010
Foreword

Professor Paul Syms MPhil PhD FRICS, Chairman of the RICS Education Trust and Honorary Professor, Centre for Urban Policy Studies, University of Manchester.

I was very pleased on several counts to be invited to write a Foreword to this important piece of research. Having been actively involved in brownfield regeneration for more than 30 years, mostly in Greater Manchester and the North West region of England, I have a particular interest in the subject and know only too well how difficult it can be to redevelop long-term, or ‘hardcore’ brownfield sites. In 2005 in my capacity as director of the National Brownfield Strategy for England, and the person responsible for maintaining the National Land Use Database for England (NLUD), I was invited to the Japanese Embassy in London to give a presentation to several land and environmental specialists visiting from Japan. Finally, as a trustee of the RICS Education Trust, I was very pleased that my fellow trustees saw fit to support the work – needless to say I did not participate in the decision making process.

Very often hardcore brownfield sites are located in areas of extreme market failure, as is the case with many sites in the Manchester area and throughout the North West. Not only do these sites represent a wasted asset, they also have a tendency to blight the neighbourhoods in which they are located, thereby exacerbating a spiral of decline. This research has clearly demonstrated that tackling such sites is often best achieved through strong partnerships between the public and private sectors. A policy emphasis on land re-use is also important.

The research reported upon in this document, together with statistics from NLUD and the Department for Communities and Local Government, confirm that England’s land re-use policies are working, nevertheless we must not assume that all hardcore sites can be redeveloped. Some sites are in locations where markets are never likely to exist, whilst other sites have the potential to make significant contributions to biodiversity and to flood alleviation. The findings from both Manchester and Osaka have an invaluable role to play in formulating site assessment criteria for evaluating the future roles of hardcore brownfield sites. The research team are to be congratulated upon the outcome of their work.

As both Britain and Japan move out of recession, a key challenge, as the research points out, will be to stimulate brownfield regeneration using new and innovative financial vehicles. This will be vital if cities such as Manchester and Osaka are to regain momentum in urban regeneration.

Masato Ito, Deputy General Manager, Sustainable Property Promotion, Real Estate Business Development Department, The Sumitomo Trust & Banking Co., Ltd.

I consider it a great honor to introduce the research, Cities in Recession: Urban Regeneration in Manchester (England) and Osaka (Japan) and the Case of ‘Hardcore’ Brownfield Sites.

The research aims to compare the approaches to revitalizing derelict and vacant urban lands and property in Manchester (England) and Osaka (Japan). Since the two cities are similar to each other in terms of their population and historical
backgrounds, we can compare the differences in planning and regeneration systems, property markets, and views of brownfield development more clearly.

As the report points out, it was during 1990s that there was increasing focus on soil contamination in Japan. As a result, the Soil Contamination Countermeasures Act was established in 2002. On the other hand, brownfield development in Japan often tends to have a negative stigma without considering its positive potential. This report will also help us to explore the more positive effects of regeneration such as the reuse of previously developed land and the prevention of greenfield development.

This report will definitely be helpful for both the public and private sectors. The conclusion outlines several suggestions for “policy implications”. Even if central and local governments face financial difficulties, there might be alternatives without spending money, such as government guarantees. The private sector will also be able to learn a lot from the “critical success factors” section, because sustainable development will also make their business sustainable.

I have a tremendous amount of respect for Professor Tim Dixon of Oxford Institute for Sustainable Development, Oxford Brookes University and his colleagues. He led the Manchester research, while Professor Hirokazu Abe of Osaka University and Dr. Noriko Otsuka of University of Basle worked in conjunction with him in the Osaka part of the study. The effort of each contributor deserves commendation, and the constructive suggestions in this report will, I hope, favorably impact brownfield developments not only in the UK and Japan, but also around the world. So I hope that this report will be widely read by those in the public and private sectors all over the world.
Executive Summary

Research Overview

The overall aim of the research is to compare the English and Japanese experience in regenerating ‘hardcore’ (long term derelict and vacant and contaminated) brownfield sites. The research, which was conducted during 2009-2010, focuses on 10 case study sites (involving some 31 interviews with key stakeholders) in both Manchester and Osaka, which are comparable cities in their respective national contexts, and in terms of their shared history. The research also aims to set the findings in the context of differences in approach in England and Japan to planning and regeneration; property markets; and brownfield and contamination. The research suggests that hardcore brownfield sites have been badly hit by the recent recession in both Manchester and Osaka. Despite this, there is not only evidence that hardcore sites have been successfully regenerated in both cities, but also that the critical success factors operating in both cities in bringing sites back into use share a large degree of commonality. Both England and Japan would benefit from better data and information on brownfields and contamination, and both need to explore new models and vehicles for funding infrastructure and clean-up during a period when public purses are severely constrained.

Research Headlines

- Voluntary cleanup of contaminated sites continues to predominate in both England and Japan.
- In Japan, the concept of sustainable development has not yet widely been recognised, but in the UK (England) sustainable development is positioned as a part of key Government strategies for delivering urban regeneration programmes.
- Both England and Japan would benefit from better data and information on brownfields and contamination.
- Both Manchester and Osaka share a vision in terms of their ambitions to regenerate substantial parts of their urban land area through large-scale and comprehensive urban regeneration programmes, based around joint venture, or public-private, partnership models.
- Manchester and Osaka are cities in recession, with both property prices and regeneration activity facing severe constraints as the credit crunch hits national, regional and local economies, and as the effects of globalization re-enforce such impacts.
- In Manchester and Osaka the regeneration of more marginal brownfield sites (which require substantial clean up) is increasingly under threat, as liquidity and confidence have fallen in the banking sector making it difficult for property and construction companies to borrow.
- There are successful examples of hardcore regeneration in both cities. The main critical success factors are: strong markets; seeing the recession as an opportunity; long-term vision; strong brand; strong partnerships; undertaking large scale projects; and prioritising infrastructure.
- Regeneration strategies in both cities should ensure that risk management and due diligence procedures are followed when brownfield sites are redeveloped.
- Empty rates and the proposed Community Infrastructure Levy in Manchester are seen as detrimental to successful regeneration.
- New models and vehicles for funding infrastructure and cleanup need to be considered (e.g.: TIFs/ADZs in England and REIT clean-up funds in Japan).
Main Findings

Comparing Practice: Manchester and Osaka

Both Manchester and Osaka are third cities in their own countries with significant brownfield issues. The cities are founded on a rich and historic legacy of industrialisation stretching back over the last two centuries, and both share a common history through their previous emphasis on textiles and manufacturing.

Osaka’s role as the ‘Manchester of the Orient’ has given way to a new focus as a knowledge-based city-region economy, but with manufacturing still an important industry base in the city. Manchester’s role in the north west region of the UK, and its key focus as an engine for economic growth in the wider Greater Manchester sub-region, have driven calls for its placement as a ‘city region’ within the UK, which it has recently secured.

Both cities also share a vision in terms of their ambitions to regenerate substantial parts of their urban land area through large-scale and comprehensive urban regeneration programmes, based around joint venture, or public-private, partnership models.

However, both Manchester and Osaka are cities in recession, with both property prices and regeneration activity facing severe constraints as the credit crunch hits national, regional and local economies, and as the effects of globalization re-enforce such impacts. In these circumstances the more marginal brownfield sites which require substantial clean up are increasingly under threat, as liquidity and confidence have fallen in the banking sector and consequently the property development and construction industries.

Attitudes towards brownfield regeneration and redevelopment

The majority of development land in Manchester is brownfield land and developers are used to developing such sites. Niche players have emerged but it is important to note that brownfield is just a part of the wider regeneration landscape in Manchester, which is focusing on place-making and projects which seek to increase demand in areas of low demand.

Osaka is starting from a relatively lower level of knowledge and understanding of brownfields and contamination given the more recent introduction of relevant legislation. Nonetheless awareness of soil contamination countermeasures has been gradually raised amongst real estate and development professionals since the launch of the Soil Contamination Countermeasures Act (SCCA) in 2002. In Japan, however, the concept of sustainable development has not yet widely recognised, in contrast to the UK where sustainable development is positioned as a part of key Government strategies for delivering urban regeneration programmes. Although the term ‘sustainable development’ is used in Japan, the terminology does not convey an explicit link between the reuse of previously developed land and the prevention of greenfield development, for example.
Contamination and other barriers to regeneration

Contamination, although important, is not the only issue when it comes to regenerating sites in Manchester. Low demand and a downward spiral in social and economic conditions in areas are difficult to reverse particularly in a recession. However, poor knowledge of tax relief on contaminated land was acting as a barrier and there were other issues of poor and under-resourced infrastructure acting as a further barrier. As regards the public sector, the convention of offering 250 year leaseholds might be less appealing than freehold or 999 year leasehold for new housing, and Design for Access (DFA) 2 provisions may make some homes relatively more costly for some purchasers.

Similarly in Osaka it was found that contamination, although recognised as one of the key barriers to redevelopment by developers, is not always seen as the biggest obstacle to brownfield re-use. Rather, fragmented ownerships and development control as well as lack of agreement with landowners were seen as acting as bigger barriers. In Japan, there is a marked lack of government-led incentives (e.g. tax relief, policy instruments) for developers to develop brownfield sites. Developers have to follow the same procedure in dealing with brownfield sites as they do with more ‘normal’ and less ‘problematic’ sites (i.e. greenfield sites). In addition, Osaka faces severe economic decline affected by the world-wide recession in 2008, despite the fact that the Japanese property market temporarily recovered in the second half of the noughties.

Hardcore brownfield sites

Viability was being hit in the recession and so hardcore sites in particular in Manchester were suffering. Linking and merging such sites could lead to more advantageous outcomes and the public sector had a role to play here. The boom in prices had led to unrealistic expectations and some sites had changed hands at inflated prices which were now caught in the overhang of the recession. Even in areas which were perceived as having successful masterplans, varying site levels, fragmentation of ownership, contamination and other issues became more important when there was a market recession, often therefore making such schemes more ‘marginal’ in terms of potential success. This was a particular issue in East Manchester where old industrial buildings, different ground conditions and groundwater issues could make site assembly and remediation more complex. Some developers saw the recession as offering opportunities to acquire sites at reduced prices.

The experience in Osaka is very similar. In the current recession, it is extremely difficult for financial institutions to make any lending decisions for brownfield redevelopment which have inherent risks. On the other hand, some developers see the decline of land prices as a new business opportunity and can acquire land at very low prices.

The role of the public sector in regeneration

The ‘Manchester model’ of regeneration, which is founded on a strong public-private partnership basis, was a vitally important part of the regeneration landscape in the city and beyond, and is seen by developers as one of the key advantages of doing business in Manchester. The NWDA was also seen as playing an important role. Developers suggested that the publics sector needed to become more flexible and take a greater share of risk in the recession, however.

The Japanese public institutions which are promoting regeneration tend to put substantial emphasis on project profitability, and this has resulted in the sector being seen as replicating the role of private developers. In order to regenerate risky
brownfield and hardcore sites which many developers are unwilling to undertake, it is essential to have strong support from the public sector. To justify and maximise the public sector’s support, it is necessary to clarify the social goals responding to a variety of public interests. Nevertheless, it is problematic to formulate a roadmap for regeneration since Japan lacks a national strategy or slogan for promoting urban regeneration in contrast to England.

**Land and property markets and recession**

The crisis in liquidity and confidence is hitting property markets hard in Manchester and making more marginal sites difficult, if not impossible, to bring back into use. Bank lending on contaminated sites could not be expected. Oversupply issues, driven by speculation during the boom, had fuelled the current crisis. The recession was also affecting remediation techniques carried out, with more standard techniques or less costly techniques holding sway. It was felt that the worst of the recession was still to be felt and that the existing skills base of regeneration had been depleted in the recession as staff were laid off. Some interviewees pointed out that regeneration was a long term process and that market cycles were inevitable. Riding out the storm would be difficult but there were also some advantages, with cheaper site assembly now possible.

Real estate prices in Japan had been falling since the bursting of the bubble economy in the 1990s. Despite a subsequent recovery the credit crunch of 2008 led to a further fall in real estate prices. In the current economic recession, it is extremely difficult to borrow money from any financial institutions for the development of high-risk land such as hardcore sites in Osaka, and regeneration of these high-risk sites has become much harder than before. In particular, contamination is considered to be a serious drawback and bank lending on such sites is difficult to achieve. In the next few years a large amount of new office space will be supplied in Osaka, but the demand for the office space will be comparatively low. In this situation new regeneration projects in Osaka may well not be feasible in the near future.

**Comparing Contexts: England and Japan**

**Planning and regeneration**

It is important to understand that Japan’s planning system is not only less restrictive than England, it is also relatively less well-integrated with environmental policy. Although planning law has been amended from time to time, the basic structure has remained relatively unchanged: the national government in Japan sets a framework which is applied nationally and locally (through municipalities and prefectures).

In contrast to England there has not been a strong explicit focus on brownfield redevelopment within the context of a sustainable development agenda, but the economic recession of the 1990s was seen as an broader opportunity to re-invent Japan’s urban areas with a liberal, relatively unregulated ‘competition’ policy built around the *Urban Renaissance Special Measure Law*. Japan’s relatively weak planning system and its ‘lost decade’, following the bubble economy of the late 1980s have therefore led to a policy emphasis on ‘competition’ in urban regeneration. This has seen the emergence of ‘zones of exception’ which comprise ‘Urban Revitalization Zones’ underpinned by tax breaks and other financial incentives.

**Property markets**

In Japan, land is regarded as a separate asset from the building and so the term, ‘land price’ is usually used instead of ‘property price’. Therefore ‘property price’ in Japan usually comprises land price plus building price which are calculated
separately. As far as the residential market is concerned the separation of land and building value in Japan, combined with the cultural distinctiveness of short housing lifespan (i.e. ‘scrap and rebuild’), means that residential building values depreciate very rapidly over 10-15 years.

Japan’s recession after the peak of 1991-2 was long-lived. This post-bubble period during the 1990s is known as the ‘lost decade’, with rates of growth at less than 2% pa. Although the economy began to recover during the first part of the 2000s, the current economy is still not as strong as it once was. The Japanese property recession following the peak of 1991-2 has lasted a considerable time, and the recent bottoming out (as evidenced by land price movements) in 2007-2008 preceded a more recent fall in 2008-2009. In contrast, the recent downturn in England (and Wales) appears to have been relatively more dramatic.

A similar picture emerges in relation to house prices, with significant increases globally in house prices from 2000-2009, but in Japan a very much flatter market. This is partly attributable to some key differences. At 61% in 2008, Japan’s home ownership rate is lower than the US and the UK but higher than some continental European countries such as France and Germany. The so-called buy-to-let loans that were popular in the UK did not gain popularity in Japan during the recent housing boom, perhaps because buyers were influenced by the lost decade value decline in 1990s. Because Japan’s home ownership rate is moderate (two of every five households are renters) relative to peer countries, mortgage debt as a share of GDP is also maintained at a sustainable level.

Commercial real estate performance has also followed a similar pattern in Japan, although the recent fall in the CBRE index has been less severe than in the residential sector, reflecting the relatively stronger fundamentals of capital and rental growth in the commercial property sector.

**Brownfields and contamination**

Japan’s environmental history is perhaps best encapsulated by two themes: the tragedy of sustained environmental damage during the rapid period of economic growth during the 1950s and 1960s, followed by the country’s success in combining the control of industrial pollution with, at least until recently, continued economic growth.

In terms of contaminated sites in both England and Japan, voluntary cleanup continues to predominate. In Japan, exemptions within the SCCA appear to have contributed to the relatively slow progress in the clean-up of contaminated sites. In both countries, ‘hardcore’ sites pose a particular issue, particularly in the context of an economic recession which makes it less likely that marginal sites will be cleaned up and redeveloped. Moreover there is not the same focus on house building on brownfields as there is in Japan and in any event the nature of the Japanese house building industry is also very different to that in England, with modern methods of construction and offsite techniques more common, and a ‘scrap and rebuild’ culture with significantly shorter lifetimes for houses in Japan.

Japanese companies have also focused very clearly on proving their environmental credentials through the detailed analysis of site cleanup in their corporate responsibility reports which focus on business units to be sold, closed or demolished. Much of this work is voluntary, however, and Japan also suffers a lack of basic data and information on the nature and extent of both contaminated and brownfield sites.

Alongside a grant system for cleanup there is also the opportunity for Japanese businesses to obtain interest subsidies from the Japanese Environment Association (JEA) if they currently have a loan through the Development Bank of Japan or the Okinawa Finance Corporation. More recently other private sector initiatives have been developed to help bring brownfields back into use (for example, Sumitomo
Trust's Eco-Land Fund, a contaminated land purchase and rehabilitation fund, operated by Green Earth Co., Ltd., based around a loan facility and the establishment of a real estate trust).

It is important to note that comparing England and Japan in terms of the amount of brownfield is difficult because of differences in data collection. Nonetheless using official and unofficial data sources enables a comparative picture to be built up (Table 1).
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Total land area</td>
<td>130,000 km²</td>
<td>378,000 km²</td>
</tr>
<tr>
<td><strong>B</strong> Urban land area</td>
<td>12,280 km²</td>
<td>12,560 km²</td>
</tr>
<tr>
<td><strong>D</strong> Total population</td>
<td>49.13 million</td>
<td>127.28 million</td>
</tr>
<tr>
<td><strong>E</strong> Estimated total area of brownfield sites (PDL)</td>
<td>62,130 ha</td>
<td>195,213 ha</td>
</tr>
<tr>
<td><strong>F</strong> Contaminated sites</td>
<td>300,000 ha</td>
<td>113,000 ha</td>
</tr>
<tr>
<td><strong>G</strong> Hardcore sites</td>
<td>16,523 ha</td>
<td>28,000 ha</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong> Urban land area</td>
<td>Urban area (6)</td>
<td>Densely inhabited districts (7)</td>
</tr>
<tr>
<td><strong>D</strong> Total population</td>
<td>(Persons/km²)</td>
<td>(Persons/km²)</td>
</tr>
<tr>
<td><strong>D/B</strong></td>
<td>4,001</td>
<td>10,134</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D</strong> Total population</td>
<td>(Persons/km²)</td>
<td>(Persons/km²)</td>
</tr>
<tr>
<td><strong>D/B</strong></td>
<td>4,001</td>
<td>10,134</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E</strong> Estimated total area of brownfield sites (PDL)</td>
<td>(PDLa)(4)</td>
<td>(Unused or less-used land in urban area)(5)</td>
</tr>
<tr>
<td><strong>F</strong> Contaminated sites</td>
<td>(England and Wales)</td>
<td>(All over Japan)</td>
</tr>
<tr>
<td><strong>G</strong> Hardcore sites</td>
<td>Hardcore sites in England</td>
<td>(PBFs) (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G</strong> Hardcore sites</td>
<td>(Hardcore sites)/(Urban land area) England</td>
<td>(PBFs)/(Urban land area)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brownfields as proportion of total urban land area(E/B)</strong></td>
<td>5.1 %</td>
<td>15.5 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brownfields as proportion of total urban land area(E/B)</strong></td>
<td>(PDL)/(Urban land area) England</td>
<td>(Unused or less-used land)/(Urban land area)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardcore Sites as proportion of total urban area(G/B)</strong></td>
<td>1.3 %</td>
<td>2.2 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardcore Sites as proportion of total urban area(G/B)</strong></td>
<td>(Hardcore sites)/(Urban land area) England</td>
<td>(PBFs)/(Urban land area)</td>
</tr>
</tbody>
</table>
### Notes to Table 1


2) Yasutaka et al (2007)


(PBFs) potentially brownfield sites

<table>
<thead>
<tr>
<th>Notes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Sato (2007). MoE (2007).</td>
<td>This covers sites where the soil contamination countermeasure cost exceeds 30 percent of the land price. The number of Potentially Brownfield sites was calculated by multiplying the number of contaminated sites (CS) (disused and operating manufacturing, gas stands and dry cleaners in Japan) by the estimated probability of a CS becoming a Brownfield site (Yasutaka (2007)). This number includes not only the estimated current brownfield sites but also an estimate of 'potentially brownfield sites'. A 'Potentially Brownfield' site means that although the site is not brownfield now, it will be categorised as brownfield when the CS is closed down. Moreover, It should be noted that the definition of &quot;Brownfield site&quot; in MoE’s research (2007) is &quot;a previously used site that cannot be redeveloped due to the presence, or potential presence, of contamination&quot;, which is quite different from the UK definition.</td>
</tr>
<tr>
<td>2) Yasutaka et al (2007)</td>
<td></td>
</tr>
<tr>
<td>(PBFs) potentially brownfield sites</td>
<td></td>
</tr>
<tr>
<td>4) EPS</td>
<td></td>
</tr>
<tr>
<td>5) MLIT(2003)</td>
<td></td>
</tr>
<tr>
<td>Unused or less-used land in urban area</td>
<td></td>
</tr>
<tr>
<td>DCLG’s Urban Settlements 2001 data</td>
<td></td>
</tr>
<tr>
<td>6) 2005 Census (MIAC/Ministry of Internal Affairs and Communications of Japan)</td>
<td></td>
</tr>
<tr>
<td>7) 2005 Census (MIAC/Ministry of Internal Affairs and Communications of Japan)</td>
<td></td>
</tr>
</tbody>
</table>
Policy implications and decision-making: beyond recession

Current and future policy and practice: what can be done?

In the Manchester interviews it was universally agreed that there were no ‘quick fixes’ for moving out of the recession. Increasing liquidity and confidence were the key to this, and currently hardcore brownfield sites were continuing to suffer continued vacancy and dereliction. Although Tax Increment Financing and Local Asset Backed Vehicles (and other tax incentives) were also mentioned as a possible measure to rekindle regeneration it was felt that the recession would continue to impact through reduced liquidity and confidence and until confidence returned, and the banks starting lending, that recovery would be slow. In summary the main policy implications of the research are:

- Help improve knowledge and understanding of tax relief and other related incentives for contaminated land;
- Reconsider the impact of the Community Infrastructure Levy;
- Further reform of empty rates is required; and,
- Consider ADZs and TIFs.

In Osaka the private developers who were interviewed suggested that there is a need to implement government policies based upon a long-term national vision for brownfield regeneration. Since local governments now face financial difficulties, it is not enough for the central government to simply unilaterally implement policies, and the central government really needs to encourage public-private partnerships much more than it has in the past.

Getting the fundamentals right: critical success factors

There is a strong commonality between the critical success factors (CSFs) that can lead to successful regeneration of hardcore sites in both Manchester and Osaka. A summary is shown in Figure 1.
In summary, the keys to success are:

- **Strong market:** for the regeneration to work there had to be a strong potential market for the product. Although the property market is subject to booms and slumps, ensuring long term demand for housing and other uses is essential. Location of a site becomes even more important when the market is a downturn and it is clear that more marginal sites face an uncertain future in the current market.

- **Seeing the recession as an opportunity:** in Osaka falling real estate prices have been seen as an opportunity for regeneration. It may also be the case that similar falls in Manchester may in due course help promote a more vibrant regeneration platform for ‘opportunity funds’, although depleted liquidity and confidence are key issues in both cities. In Japan some initiatives, such as Sumitomo Trust’s Eco-Land REIT, offer innovative ways of financing clean-up.

- **Long term vision:** despite the importance of market demand it was important not to lose the long term vision of regeneration. Successful schemes are the ones which continue to act as anchors for further development and regeneration in an area, despite market cycles.

- **Strong brand and individuality of product:** allied to the first two critical success factors it is important to ensure the regeneration product is individual enough to tap into effective demand and that a strong brand underpins this. In both Manchester and Osaka, ‘flagship’ projects have helped regenerate hardcore sites.

- **Partnership:** the Manchester model of regeneration has formed the basis for successful regeneration projects for many years and continues to underpin the ongoing regeneration projects in the City, despite the current recession. This private –public partnership model has enabled risk to be shared and for heavily contaminated sites to be cleaned up though the input of both sectors. In Osaka the most successful projects have involved the Urban Renaissance Agency (URA) which has partnered the private sector.

- **Linking sites in a coherent whole:** linking sites which require regeneration is more successful than simply a piecemeal approach. This is true of hardcore sites which are often relatively small in size. Regenerating isolated sites and relying on overheated market valuations has led to speculation and then recession, particularly in the housing market in Manchester. Projects which have linked anchors of activity are likely to be more successful. Larger ‘flagship’ projects which link sites have proved successful in both Manchester and Osaka.

- **Getting infrastructure in place:** community building and re-shaping is not just about a focus on brownfields in isolation: it is about bringing an improved social fabric back into a community, and so building social capital and ensuring infrastructure is in place is essential. In East Manchester some sites continue to lie derelict and vacant because they have become stigmatised not only through contamination, but also through lack of infrastructure investment. In a recession public funds and private funds are limited, so alternative methods of financing are required. In Osaka, land readjustment has played an important role in adding value to sites.
The Emergency Urban Revitalization Zones in Osaka offer a taste of how Japan has tried to kickstart the regeneration process during a period which became known as the lost decade. Our interviews suggested that recent changes in political administration allied with the recession itself had made progress difficult. In Japan the designation of the Urban Revitalization Zones (URZs) was only limited to urban centres in large cities which had the potential for successful outcomes. Future application of such zones should therefore be extended to urban areas in more marginal locations. This type of site really needs central government support and can be benefited from the concept of URZs. Secondly, there is, in Japan a need for a better mechanism for the application of tax reliefs. Although many developers are familiar with the nature of tax reliefs (eligibility), the application is currently limited to funding for the construction phase of a development, for example.

In the UK, although such zones of exception have not been promoted there has been much debate over TIFs and empty rates. It is clear that empty rate relief need to be re-examined as empty rates are hitting regeneration projects. Moreover, TIFs (and Accelerated Development Zones) should also be examined in more detail in a UK context to determine their feasibility.

Finally, alongside CSFs it is important that strategies are put in place in both cities to ensure that risk management and due diligence procedures are followed when brownfield sites are redeveloped. This is important for both national regeneration policies in both cities and in Osaka where foreign investment is very important. In terms of a generic process, English Partnerships’ Preparation, Options, Design and Delivery (PODD) toolkit is an exemplar which enables stakeholders to understand and place decision-making in context.

Conclusions

The different approaches to brownfield regeneration in each city are best understood in the context of important differences in planning, sustainable development and environmental agendas in England and Japan. Moreover, the lost decade of Japan’s property recession after the 1992 peak offers important lessons for those countries (including England) seeking to underpin recovery in their property markets. During that period Japan’s response to the recession was to focus on urban redevelopment policy as a key platform for revitalising its large cities. UK policy could do well to learn from these lessons as the economy struggles to move out of recession.

Finally, both England and Japan would benefit from better data and information on brownfields and contamination. Whilst England has a relatively well-developed system in NLUD its limitations are well known. Japan still has no equivalent national system and both countries lack data on contaminated sites. Moreover both countries will need to re-examine their respective fiscal and legislative systems relating to brownfield urban regeneration during a period when public purses are severely limited.

Acknowledgements

Our thanks are owed to:

- RICS Education Trust and Kajima Foundation for funding the research.
- All interviewees in Manchester and Osaka.
• Professor Paul Syms and Dr Andreas Schulze Baing of University of Manchester.
• Keisuke Yanagimachi, Senior Consultant at CB Richard Ellis Research Institute, Tokyo.
• Tetsuo Yasataka of Kokusai Kogyo Co. Ltd, Japan.
• Grants-in-Aid for Scientific Research of Japan Society for the Promotion of Science (Japanese Government funding).
• The Daiwa Anglo Japanese Foundation and the Great Britain Sasakawa Foundation.
• Prof. Neil Paulley, Director of TRL Academy.
# Contents

Foreword
Executive Summary
Acknowledgements
Contents
List of Acronyms

1 Introduction ........................................................................................................ 21

1.1 Overview ..................................................................................................... 21
1.2 Aim and objectives ................................................................................... 24
1.3 Format of report ....................................................................................... 24

2 Background and Context ................................................................................... 26

2.1 Introduction .................................................................................................. 26

2.2 England........................................................................................................ 26

2.2.1 The emergence of the concept of brownfield land............................... 26
2.2.2 Brownfields and contamination .......................................................... 29
2.2.3 Hardcore sites .................................................................................... 31
2.2.4 Brownfields: a case of market failure? ............................................... 34
2.2.5 Brownfield regeneration during the recession ..................................... 37

2.3 Japan ........................................................................................................... 39

2.3.1 The emergence of the concept of brownfield land............................... 39
2.3.2 Brownfields and contamination .......................................................... 46
2.3.3 Brownfield regeneration during the recession ..................................... 50

2.4 Summary and comparisons ......................................................................... 56

3 Case Study Contexts: Manchester and Osaka .................................................. 57

3.1 Introduction .................................................................................................. 57

3.2 Manchester .................................................................................................. 57

3.2.1 History and growth............................................................................. 57
3.2.2 Regeneration: Policy and Practice .................................................... 59
3.2.3 Brownfield: nature and extent ......................................................... 63
3.2.4 Land and property markets and the impact of the recession .......... 64

3.3 Osaka .......................................................................................................... 67

3.3.1 History and growth (key facts) .......................................................... 67
3.3.2 Regeneration: Policy and Practice .................................................... 68
3.3.3 Brownfield: nature and extent ......................................................... 71
3.3.4 Land and property markets and the impact of the recession .......... 72
3.3.5 Summary and conclusions ................................................................ 74

4 Main Interview Findings: Manchester ................................................................ 75

4.1 Introduction .................................................................................................. 75

4.2 Attitudes towards brownfield regeneration and redevelopment ............ 75
4.3 Contamination and other barriers to regeneration .................................... 76
4.4 Hardcore sites ............................................................................................ 78
4.5 The role of the public sector ........................................................................ 80
4.6 Land and property markets and recession .........
4.7 Current and future policy and practice: what can be done? ....
4.8 Summary ..................................................................................................... 88

5 Manchester Case Studies .................................................................................. 90

5.1 Introduction .................................................................................................. 90

5.2 Case Studies ............................................................................................... 91

5.2.1 Sportcity .............................................................................................. 91
5.2.2 Central Business Park ......................................................................... 93
5.2.3 First Street ........................................................................................ 95
5.2.4 Holt Town ........................................................................................ 98
Figure 2.8 Land use change in England and Japan: conversion of greenfield land to urban use (data: CLG and MLIT) .................................................................44
Figure 2.9 Comparison of house building starts: England and Japan (1993-2008 Index) (data: CLG and MLIT) ........................................................................45
Figure 2.10 Comparison of house building starts: England and Japan (1993-2008) (data: CLG and MLIT) ........................................................................45
Figure 2.11 Annual Soil Investigations in Japan (data: MoE; GEPC) ......................49
Figure 2.12 Residential Land Price Index: Japan (data: MLIT) ............................52
Figure 2.13 Comparison of Residential Land Prices: England and Japan (data: CLG and MLIT) ..................................................................................52
Figure 2.14 CBRE Index (Data: CBRE) .................................................................53
Figure 2.15 Bank lending in Japan (data: Bank of Japan) ....................................54
Figure 3.1 Manchester: in the UK and the Manchester City Region ......................58
Figure 3.2 Residential land values: England, London and North West (1994-2009) (Data: CLG) ...................................................................................65
Figure 3.3 House price index and sales volume in Greater Manchester (1995-2009) (Data: Land Registry) ..............................................................66
Figure 3.4 Osaka and the Kansai Region (source: Wikepedia) ...............................67
Figure 3.5 Map of Osaka Revitalization Areas .......................................................70
Figure 3.6 Residential Land Prices : Japan, Tokyo and Osaka (Index: 1987-2009) (Data: MLIT) .......................................................................................73
Figure 3.7 Residential Land Prices: Tokyo and Osaka (Year on Year change (1987-2009) (data: MLIT) ..............................................................73
Figure 3.8 Number of New Condominium Units Sold and Average Price in Tokyo and Osaka: 1999-2008 (Data: CLG) .......................................................74
Figure 5.1 Location of Manchester Case Studies ..................................................90
Figure 5.2 Sportcity (courtesy New East Manchester) ..........................................91
Figure 5.3 One Central Park (courtesy New East Manchester) .............................93
Figure 5.4 First Street (courtesy of Ask Developments) .......................................95
Figure 5.5 Remediation at First Street (courtesy Celtic Design and Construct Remediation) .................................................................97
Figure 5.6 Holt Town (courtesy Cibitas) ...............................................................98
Figure 5.7 Holt Town (courtesy Cibitas) ...............................................................99
Figure 5.8 Jackson Brickworks Site, Briscoe Lane .............................................100
Figure 7.1 Location of case studies in Osaka .......................................................113
Figure 7.2 Hotarumachi (courtesy URA) .............................................................114
Figure 7.3 West Section of Nakanoshima Island (courtesy PCBO) .......................115
Figure 7.4 Overall picture of Minatomachi area (courtesy Minatomachi Development Centre) ...............................................................116
Figure 7.5 Alignment plan of Minatomachi area (PCBO, 1998) .........................117
Figure 7.6 Rendering of the priority development area (courtesy URA) ...............118
Figure 7.7 Development concept of Osaka North Area re-development (courtesy OURP) .......................................................................................119
Figure 7.8 Universal Studio Japan (courtesy City of Osaka and USJ) .................120
Figure 7.9 Outline Map of Konohana Western Bay Area (PCBO, 1999) ..........121
Figure 7.10 Vacant Land of Kaizuka Kitamachi .................................................122
Figure 7.11 Site Plan of Previous Factories (courtesy Daiwa Corporation) ..........123
Figure 8.1 Critical Success Factors in Hardcore Brownfield Regeneration ..........131
Figure 8.2 Preparation, Options, Design and Delivery (PODD) (adapted : LDA, 2009) ..................................................................................133
Tables

Table 2.1 The benefits of brownfield regeneration (National Round Table on Environment and Economy (2003)) .................................................................27
Table 2.2 Incidence of hardcore land (based on geographical area) (adapted from Roger Tym and Partners, 2001) .................................................................33
Table 2.3 Barriers to brownfield regeneration (HCA, 2009) ........................................36
Table 2.4 Comparative analysis of brownfields: England and Japan (based on 2007 data) (adapted from Dixon, 2009 and Otsuka and Abe, 2009) .........................47
Table 3.1 NLUD analysis: summary of headline figures ...........................................64
Table 3.2 Summary of Osaka Incentive Programmes (adapted from Osaka Office of Urban Revitalization and Promotion 2009b) ..................................................71
Table 3.3 Comparison of brownfield sites in Japan and Osaka (source of data: MoE(2007) and Yasutaka (2009)) .................................................................72
Table 5.1 Anticipated mix of land uses: First Street ..................................................96
Table 8.1 Main barriers to regeneration of brownfield sites in Manchester and Osaka .................................................................128
Table 8.2 ‘Barcelona Principles’ for promoting city recovery and reinvestment (OECD, 2009) .....................................................................................................131
List of Acronyms

England

ADZ – Accelerated Development Zone
CIL – Community Infrastructure Levy
CSF – Critical Success Factor
DFA – Design for Access (Manchester’s code for disability access)
EPA – Environmental Protection Act
NEM – New East Manchester
NLUD – National Land Use Database
NWRDA – North West Regional Development Agency
PDL – Previously Developed Land
PODD – Preparation, Options, Design and Delivery
PPP – Public Private Partnership
TIF – Tax Increment Financing

Japan

CPA – City Planning Authority
JEA – Japanese Environment Agency
MLIT – Ministry of Land, Infrastructure, Tourism and Transport
REIT – Real Estate Investment Trust
SCCA – Soil Contamination Countermeasures Act
URA – Urban Renaissance Agency
1 Introduction

1.1 Overview

The prominence of sustainable development as a UK policy agenda is strongly linked to the emphasis on brownfield regeneration, and in particular, the drive for new housing on such sites. In the UK government’s Sustainable Development Strategy, ‘Securing the Future’ (HM Government, 2005), for example, brownfield redevelopment was viewed as vital in promoting environmental justice by removing environmental degradation in deprived communities. Consequently, the UK Government has adopted a strategic approach for tackling the problems of brownfield land in England, especially land that is long-term derelict or vacant and often uneconomic to redevelop due to site size. Guidance has also been prepared to assist developers, landowners and others with the task of returning brownfield land to beneficial use.

This emphasis should also be seen in the context of a wider ‘sustainable brownfield regeneration’ agenda in Europe and elsewhere. For example, in a study of western, developed countries, the National Round Table on Environment and Economy (2003) highlighted the key generic benefits of brownfield regeneration. Other research has shown that brownfield issues are clearly a global problem, but little or no research has sought to compare experiences and lessons between western countries and south-east Asia, where in developed economies, such as Japan, there are potentially severe environmental issues arising from previous industrial use.

This is an important gap to address because increasingly, foreign investment in Japan is experiencing problems with environmental liabilities in an already recessed market, and both the UK and Japan currently face problems with hardcore brownfield sites which suffer from long term dereliction and contamination. There are therefore important lessons to be learned from sharing experiences between England and Japan, as both countries will have to deal with these problematic brownfield sites, not only during an economic recession, but also when affordable housing shortages are a real issue.

In comparison with the UK (or for the purposes of this proposal, England), Japan is relatively inexperienced in tackling contaminated brownfield sites. Both countries, however, also suffer from a lack of information and data on contaminated sites. In England brownfields are not necessarily contaminated, whereas in Japan (as in the USA) the two terms are synonymous.

Data from the Homes and Communities Agency (2010) suggests that there are 63,750 ha of brownfield (or ‘previously developed’) land in England. This includes land that is still ‘in use’ but identified as potentially latent brownfield but with possibly as many as 25% of the total number of sites being ‘hardcore’: i.e. suffering long-term dereliction. Many of these sites suffer from some degree of contamination, or are affected by other major problems that hinder their reuse, but information regarding how many of these sites are definitely contaminated is not readily available. Data from the Environment Agency suggests there are some 438,000 ha of land in England and Wales with potential contamination problems, but this includes land currently used for industrial purposes (300,000ha).
In contrast, Japanese statistics suggests that Japan has some 113,000 ha of contaminated (brownfield) land (equivalent in size to twice the area of Tokyo) worth in value terms, 43.1 trillion yen. In this sense, brownfields are: ‘lands which are unused or with extremely limited use compared to their intrinsic value because of the existence or potential existence of soil contamination’.

In Japan, the term brownfield is a relatively new concept within the urban renaissance agenda, but it has risen in importance since the introduction of the Soil Contamination Countermeasures Act 2003 (SCCA), the equivalent of the UK’s Environmental Protection Act (1990) Part II. The SCCA was the first legislation to provide a set of indicators to measure soil contamination for the purpose of preventing adverse effects on public health, and was largely drawn from the USA’s approach to contaminated land (Otsuka and Abe, 2008). Consequently, the focus was placed on ways of tackling the soil contamination rather than on proposing beneficial uses on brownfield sites in contrast to the UK. According to recent Japanese research, only 1 or 2 per cent of potentially contaminated sites had been investigated under the SCCA.

However, in Japan there is now an increased urgency to maximise the use of scarce land resources in a crowded set of islands, which has parallels with the UK experience. In addition the drive to regenerate urban areas in Japan has come at a time when the country is already in recession, and perhaps has lessons for the UK to learn from in a wider sense, as property prices and the viability of redeveloping brownfield land are potentially reduced in both countries.

Previous work in the UK has identified key barriers to redeveloping brownfield sites as being:

- Physical and ownership problems;
- Regulatory (e.g. environmental protection; town planning or other); and
- Market conditions.

Market failure in such sites is commonplace and is clearly exacerbated by adverse economic conditions, locally, regionally and nationally. In addition, ‘stigma’ may also create problems before remediation (e.g. fear of hidden clean up costs; the “trouble” factor associated with work involved in clean up;) or after remediation (depending on the method of cleanup, is there still a health risk?), and this is an important issue in both England and Japan.

Research by Oxford Brookes University for the EPSRC SUBR:IM consortium during 2004-2007 examined large case study sites in Thames Gateway and Greater Manchester to analyse the drivers and barriers for brownfield regeneration in these locations, and the relationship between stakeholders in the regeneration process. The research also exemplified best practice and identified key policy issues at a sub-regional and national level. However, the emphasis was very much on largescale ‘flagship’ projects in this work. There is more research needed therefore to assess how smaller, long - term derelict sites with contamination can be brought back into use. The current research project will focus on such ‘hardcore’ sites where:

1. The site may well be small (perhaps less than 5ha) and is located in a relatively isolated or marginal location;

---

1 See www.subrim.org.uk
2. Redevelopment may be difficult because of ownership constraints and lack of infrastructure;
3. There is a contamination issue; and,
4. The site has suffered from long-term dereliction.

In England a key hotspot for ‘hardcore’ sites is Greater Manchester. Manchester is England's third largest conurbation after Greater London and the West Midlands (the City of Manchester has a population of 441,200, while the wider Greater Manchester Urban Area has a population of 2,240,230). With its rich industrial legacy, it faces substantial brownfield problems. For example, research work by Roger Tym for English Partnerships found that 25% of hardcore sites in England were located in the North West, with substantial areas in Salford and Manchester.

Turning to Japan, a key area which shares a certain degree of history with Manchester is Osaka. Osaka is the capital of Osaka Prefecture and the third-largest city in Japan, with a population of 2.7 million. It is located in the Kansai region of the main island of Honshū, at the mouth of the Yodo River on Osaka Bay.

The parallels between the two conurbations are substantive. Manchester is historically notable for being the world's first industrialised city and for the vital role it played during the Industrial Revolution and is the UK’s ‘third city’.

Osaka also followed a similar rapid growth trajectory industrially and during the 1930s earned the name ‘Manchester of Japan’ or ‘Manchester of the Orient’. Both cities therefore have similar identities and ‘brands’ in terms of their regeneration.

In summary, this research focuses on England and Japan because of the close parallels between the two countries in terms of the problems they face in regenerating hardcore brownfield sites, and the opportunity to study two cities which face similar issues in terms of the broader regeneration agenda at a time of economic recession. The research examines Manchester and Osaka and contrasts their regeneration experiences in the context of detailed case studies of hardcore sites set in the wider regeneration context of each city.
1.2 Aim and objectives

This research is designed to compare the English and Japanese experience in regenerating ‘hardcore’ brownfield sites. This work is important for raising awareness of the shared experience of regenerating hardcore brownfield sites in an international context during a time of economic recession. Both Manchester and Osaka are typical and comparable cities in their respective national contexts, and their shared history is an important reason for the focus of this study. As little is known about Japanese real estate markets the study also seeks to draw out and highlight key characteristics to help build up a clearer picture.

The key objectives of the research are to:

- Compare the context and background for brownfield regeneration in England and Japan;
- Identify the main barriers for the regeneration of hardcore sites in Manchester and Osaka;
- Examine the causes of ‘market failure’ in such sites in the context of changing economic conditions locally, regionally and nationally;
- Examine the relationship and roles of key stakeholders in the process of bringing these sites back into use;
- Identify the critical success factors for bringing such sites back into use; and,
- Highlight the key lessons for other sites in both countries sub-regionally, nationally and internationally.

1.3 Format of report

The format of the report is as follows:

Section 2 - Background and Context. This section sets the scene for the research by examining and comparing the context of England and Japan in terms of approaches to brownfield; contaminated and hardcore sites; and regeneration during the recession.

Section 3 - Case Study Contexts: Manchester and Osaka. This section examines the history and growth of both Manchester and Osaka and compares regeneration policy and practice in the two cities, in the context of brownfields and the impact of the property recession on land and property markets.

Section 4 – Manchester: Main Interview Findings. This section describes the main findings from the interviews, based around key emerging themes.

Section 5 – Manchester Case Studies. This section examines the five case studies identified in Manchester and summarises the critical success factors which have been exemplified through bringing hardcore sites back into use.

Section 6 – Osaka: Main Interview Findings. This section describes the main findings from the interviews, based around key emerging themes.
Section 7 - Osaka Case Studies. This section examines the five case studies identified in Osaka and summarises the critical success factors which have been exemplified through bringing hardcore sites back into use.

Section 8 - Conclusions. The results of the research are examined and conclusions drawn from the comparative study of Manchester and Osaka.

Appendix 1 contains detailed analysis of NLUD data for Manchester and full details of the research methods are contained in Appendix 2.
2 Background and Context

2.1 Introduction

This section sets the scene for the research by examining and comparing the context of England and Japan in terms of approaches to brownfield; contaminated and hardcore sites; and regeneration during the recession. The section focuses particularly on housing and housing land supply in the context of the current recession and previous economic cycles in both England and Japan.

The section concludes by comparing the respective approaches to brownfield regeneration, particularly hardcore sites in both England and Japan.

2.2 England

2.2.1 The emergence of the concept of brownfield land

Over recent years, there has been a strong emphasis on sustainable development (SD) principles within UK planning and development processes. The UK Government has sought to promote policies based on what is often referred to as the ‘Triple Bottom Line’ approach to sustainable development (Elkington, 1997). This attempts to achieve development that promotes economic growth, but maintains social inclusion and minimises environmental impact (Dixon, 2007 and Dixon and Adams, 2009). In turn this has been underpinned by policy guidance (‘Securing the Future’), which seeks to set a new framework goal for sustainable development (HM Government, 2005) and revisions to national planning guidance which aim to strengthen the focus of SD principles within the wider UK planning system (for example, PPS1: Delivering Sustainable Development (CLG, 2005) and PPS 23: Planning and Pollution Control (CLG, 2004)).

Since devolution, the constituent countries of the UK have also developed differing, but connected sustainable development agendas (Dixon and Adams, 2009). For example, the UK Government and devolved administrations jointly launched their new Strategic Framework, ‘One Future - Different Paths’, in 2005 (DEFRA, 2005). This was published in conjunction with the UK Government’s new strategy for sustainable development ‘Securing the Future’ (HM Government, 2005).

The prominence of sustainable development as a UK policy agenda is strongly linked to the emphasis on brownfield regeneration, and in particular, the drive for new housing on such sites. In ‘Securing the Future’ (HM Government, 2005), for example, brownfield redevelopment was viewed as vital in promoting environmental justice by removing environmental degradation in deprived communities and emphasis should also be seen in the context of a wider ‘sustainable brownfield regeneration’ agenda in Europe and elsewhere (Dixon, 2007). For example, the National Round Table on Environment and Economy (2003), in a study of western, developed countries, highlighted the key generic benefits of brownfield regeneration (Table 2.1), while Allmendinger and White (2003) and Adams and De Sousa (2007) have compared the importance of brownfield regeneration in the UK and USA in explaining each country’s approach to planning and housing supply.
Table 2.1 The benefits of brownfield regeneration (National Round Table on Environment and Economy (2003))

<table>
<thead>
<tr>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation and retention of employment opportunities</td>
<td>Improved quality of life in neighbourhoods</td>
<td>Reduced urban sprawl pressures on greenfield sites</td>
</tr>
<tr>
<td>Increased competitiveness for cities</td>
<td>Removal of threats to human health and safety</td>
<td>Restoration of environmental quality</td>
</tr>
<tr>
<td>Increased export potential for cleanup technologies</td>
<td>Access to affordable housing</td>
<td>Improved air quality and reduced greenhouse gas emissions</td>
</tr>
<tr>
<td>Increased tax base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In England, for many years the term ‘derelict land’ was used as a cornerstone of regional policy but the emphasis changed during the 1980s as policy-makers became more concerned with the potential of land for comprehensive redevelopment (Adams and De Sousa, 2007). This led to the evolution of the concept of ‘previously developed land’ (Box 2.1). A concise summary of PDL, or what is commonly referred to as brownfield, is provided by ODPM (2005:7) as:

‘land that is unused or may be available for development. It includes both vacant and derelict land and land currently in use with known potential for redevelopment. It excludes land that was previously developed where the remains have blended into the landscape over time’.

This also provides the basis for the statistics which form the basis for the National Land Use Database (NLUD) the main dataset for English brownfields.

Box 2.1 Previously Developed Land (PDL) (often referred to as ‘brownfield’ land)

PDL is defined in Annex B of PPS3 Housing (CLG, 2006a):

‘Previously-developed land is that which is or was occupied by a permanent structure, including the curtilage of the developed land and any associated fixed surface infrastructure.’

The definition includes defence buildings, but excludes:

- Land that is or has been occupied by agricultural or forestry buildings.
- Land that has been developed for minerals extraction or waste disposal by landfill purposes where provision for restoration has been made through development control procedures.
- Land in built-up areas such as parks, recreation grounds and allotments, which, although it may feature paths, pavilions and other buildings, has not been previously developed.
- Land that was previously-developed but where the remains of the permanent structure or fixed surface structure have blended into the landscape in the process of time (to the extent that it can reasonably be considered as part of the natural surroundings).

There is no presumption that land that is previously-developed is necessarily suitable for housing development nor that the whole of the curtilage should be developed (in contrast to PPG3, the predecessor of PPS3).
Brownfield redevelopment has therefore come to be seen as key to SD agendas through its potentially beneficial impacts in preventing urban sprawl, keeping cities compact and reducing out-migration. It has also been promoted by key policy instruments, including planning and policy guidance in England (see, for example, POST, 1998), and the setting of a target rate for recycling.

Current statistics from NLUD (HCA, 2010), for example, suggests that there are 63,750 ha of brownfield or Previously Developed Land (PDL) in England, which represents about 5 per cent of the total urban area. The majority of this land (some 82 per cent) was located in or near an urban area (CLG, 2008). NLUD (HCA, 2010) also suggests that:

- About half of the stock of brownfield land is vacant or derelict (51% or 32,400 ha).
- There were significant regional differences within England, with the North West having the largest amount of PDL at 10,960 ha, and the largest amount that is derelict or vacant (7,440 ha) and the South East, the largest amount currently in use at 7,550 ha (Figure 2.1). There are also regional variations in PDL as a proportion of developed land with the highest figures in the North East (7.6%) and North West (6.8%).
- Some 28,810 ha (45%) of brownfield land was potentially suitable for housing and could potentially provide more than 1m dwellings but not all of this may be suitable for housing (HCA, 2010; Dixon and Adams, 2009).

As recent research points out (CPRE, 2009), it is often forgotten that the first brownfield target was introduced under the Conservative Government in 1995, which suggested that the government wanted to see 50% of all new homes in England built on re-used sites, in part influenced by the growing sustainability agenda. This thinking was picked up by the incoming Labour Government which, in 1998 proposed that by 2008, 60% of new housing should be provided on previously developed land and through the conversion of existing buildings (ODPM, 2000). In 2008 some 80% of new housing development was built on such land (DCLG, 2009) compared with
77% in 2007, for example, although given the recent fall in housebuilding activity, the number of brownfield completions has been relatively flat (Figure 2.2). In the face of falling house building activity, moreover, the basis of this target has met with justifiable criticism (CPRE, 2009: Ganser and Williams, 2007).

Figure 2.2 Housing completions on brownfield land: England, 1993-2008 (data: CLG)

Finally, recent research has shown that housebuilders in the UK have focused strongly on redeveloping brownfield land, with an increasing engagement by house builders with the corporate responsibility (CR) agenda. CR is essentially an umbrella term which embraces the theory and practice of how a business manages its relationship with society (Blowfield and Murray, 2008), and in this sense the institutions themselves are demanding increasing levels of CR from the house builder sector (Calcutt, 2007). As Osmani and O’Reilly (2009) note, the importance attached to CR was strongly illustrated in the WWF (2007) report, entitled ‘Building a Sustainable Future’, where a survey of 20 of the UK largest housing developers revealed that 70% report publicly on their approach to sustainability, and 65% have a corporate sustainability policy in place. Consequently, CR has the potential to be a powerful driver for zero carbon homes, as companies strive to improve their environmental performance, although Adams et al (2008) suggest that house builders have paid more attention to improving the sustainability of the production process rather than the product, and in many instances rhetoric still fails to match reality (Dixon, 2007).

2.2.2 Brownfields and contamination
Potential contamination from previous industrial or related uses on a brownfield site is a well-researched risk in the UK (Syms, 2004), and a number of estimates have been made within the UK of the extent of the problem. For example, POST (1998) put the figure at 50,000 to 100,000 potentially contaminated sites across the UK with the estimate for land affected being 100,000 to 200,000 ha, although the report did note that only a small proportion of these posed an immediate threat to human health and environment. More recently, the Environment Agency has suggested that there are some 300,000ha of land (325,000 sites), or 2% of the land area, in England and
Wales affected by industrial contamination (gasworks, chemical or industrial), with two thirds of this having undergone some kind of remediation. It is also clear from the same study that:

- an estimated 67,000 hectares, an area roughly the size of Greater Manchester, has been identified as being affected to some extent by chemical contamination; and,

- an estimated 44,000 hectares of land affected by chemical contamination has undergone some form of remediation.

Contamination is dealt with in number of ways which include (Environment Agency, 2009):

- Voluntary clean-up by site owners;
- Clean-up through the planning system (for example, s106 agreements under Town and Country Planning Act, 1990);
- Regulation, including Part 2A of the Environmental Protection Act (1990) (Box 2.2).

Planning Policy Statement 23 (Planning and Pollution Control) (CLG, 2004) examines the relationship between the planning system and Part 2A, and in outline suggests that as a minimum, after carrying out a development and commencement of its use, the land should not be capable of being found to be contaminated land under Part 2A.

As Figure 2.3 shows, on average almost 90% of contaminated sites in England were dealt with through the planning system (4% of those were ‘voluntary’) and 10% through Part 2A. Data from the Environment Agency (2009) suggests that 659 sites had been determined under Part 2A by the end of March 2007, with 35 of these being ‘special sites’. Interestingly over 90% of the determined sites were used for housing when the site was inspected.
Box 2.2 Part 2A Environmental Protection Act, 1990

Part 2A of the Environmental Protection Act (EPA) 1990 is a piece of primary legislation which was introduced to provide a better way of identifying and remediating contaminated land (Environment Agency, 2009). It came into force on 1 April 2000 in England and on 15 September 2001 in Wales. It deals with cases where significant harm has been cause or is posed to human health and the environment. The EPA requires local authorities to identify and deal with contaminated land, and the UK Government sees a primary role for the Act as being the encouragement of voluntary remediation through the planning system rather than recourse to Part 2A itself (Environment Agency, 2009). Guidance for RICS Members dealing with contaminated land is available (RICS, 2010).

Figure 2.3 Contaminated sites managed through different activities: England (Adapted from Environment Agency, 2009)

Although all local authorities had produced contaminated land strategies by the end of March 2007 most local authorities had still only inspected less than 10% of their areas for contaminated land (Environment Agency, 2009). Worryingly, perhaps, the vast majority (more than 90%) of sites (some 626) in England and Wales that were inspected and later determined as contaminated land were used as housing (Environment Agency, 2009).

The EPA should also be seen in the context of a number of EU directives which, at the time of writing, are in the process of being implemented or under discussion, including the Environmental Liabilities Directive, the Soil Framework Directive, and the Water Framework Directive.

2.2.3 Hardcore sites

Contamination is one risk that can affect brownfield land, but some sites may also suffer a combination of other site-specific factors (for example, ground conditions or planning permission issues) and locational factors (for example, local property market values, accessibility, planning allocations) whether or not contamination is present. Where such factors operate to discourage development the term ‘hardcore’ is often used (English Partnerships, 2003; Roger Tym, 2001).

The material in this section has been updated and adapted from Dixon et al (2005).
Research by Roger Tym and Partners (2001) for English Partnerships suggests that there are some 16,800ha of ‘hardcore’ land (2000 sites at an average size of 8.13ha (Lambert Smith Hampton, 2005). In this respect, a hardcore site is defined as a previously developed site of 2ha or more which is vacant or derelict in 2002 and was already in that condition on or about 1 April 1993 (the date of the Derelict Land Survey). Smaller sites forming part of the clusters (a group of sites located within 25m of each other totalling 2ha or more) which collectively fit these criteria are also hardcore sites.

About half of the total of hardcore sites is located in two regions: the North West (4,259ha) and Yorkshire and Humberside (3,038ha). At the other end of the scale Greater London has 390ha, mainly due to its poor NLUD coverage and geographical extent (Figure 2.4).

However, to normalise the data for geographical extent, the Roger Tym research also examined the proportion of total land area which is hardcore land (Table 2.2). The highest amount of hardcore is in the North West, where there is proportionately twice as much as in England as a whole, and the lowest is in the Eastern region, where there is less than half as much, showing (with the exception of London) a North–South divide.

Figure 2.4 Hardcore sites in England (data: English Partnerships, 2003)
Table 2.2 Incidence of hardcore land (based on geographical area) (adapted from Roger Tym and Partners, 2001)

<table>
<thead>
<tr>
<th>Region</th>
<th>Index England = 100</th>
<th>Rank (hardcore land ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North West</td>
<td>233</td>
<td>1 (4321)</td>
</tr>
<tr>
<td>Greater London</td>
<td>195</td>
<td>2 (403)</td>
</tr>
<tr>
<td>Yorks and Humber</td>
<td>157</td>
<td>3 (3174)</td>
</tr>
<tr>
<td>North East</td>
<td>145</td>
<td>4 (1640)</td>
</tr>
<tr>
<td>West Midlands</td>
<td>92</td>
<td>5 (1577)</td>
</tr>
<tr>
<td>East Midlands</td>
<td>76</td>
<td>6 (1546)</td>
</tr>
<tr>
<td>South East</td>
<td>63</td>
<td>7 (1572)</td>
</tr>
<tr>
<td>South West</td>
<td>56</td>
<td>8 (1757)</td>
</tr>
<tr>
<td>Eastern</td>
<td>45</td>
<td>9 (1123)</td>
</tr>
<tr>
<td>England</td>
<td>100</td>
<td>10 (17,113)</td>
</tr>
</tbody>
</table>

The Roger Tym study revealed that more than half of the land in vacant and derelict larger sites and clusters has been in this condition since 1993 or before. The problem is not therefore a transitory one. Other key issues identified in the research are:

- **Previous use and dereliction.** The largest uses of hardcore land in England are industrial/commercial and minerals/landfill, each accounting for around 30% of the total. Defence and transport comprise 15% each. The majority of the hardcore land is also derelict: 75% in the North West and 57% in Greater London, for example. Again, general industrial dereliction is the largest category, followed by defence dereliction.

- **Ownership.** In England as whole the majority of hardcore land is in private ownership, 15% owned by local authorities and 21% by the public sector.

- **Regeneration prospects.** Local authorities were asked in the research to select which constraints were most important. Nationally the most important constraint was ground conditions, applying to 39% of hardcore land. Each of the remaining specific factors (access/services, ownership, lack of market interest, planning) has similar frequency, roughly 20–30%, but regionally there are variations, with the North West experiencing a higher incidence of all constraints except planning. Nationally the most common proposed uses of hardcore land are employment (31%) and none (33%). Another way of looking at this nationally is that 66% of hardcore land has planning permission or has been allocated in the development plan, with 33% having no planning status. This supports the view that much hardcore land has fallen out of the recycling process altogether. Moreover, much of the land proposed for employment may have poor prospects because of supply constraints or locational problems. Finally, only 6% of hardcore land is proposed nationally for greening.

In conclusion, the study of hardcore land shows that in England as a whole:

- An estimated 17,100 hectares of PDL in sites and clusters of over 2 hectares have lain vacant or derelict for about nine years or longer.

- For every 100 hectares in larger sites and clusters which are currently vacant or derelict, more than 60 hectares have been in this condition for some nine years or longer.

- 65% of hardcore land is derelict, in the sense of being so damaged by previous development that it is incapable of beneficial use without treatment for contamination.
High proportions of hardcore land are handicapped by supply-side constraints, adverse market conditions, or both.

One third has no proposed use and one third has no planning status.

Greening, the traditional solution for sites with poor development prospects, is only proposed for a tiny minority of hardcore land.

This suggests that a high proportion of hardcore land has dropped out of the cycle of renewal in which old uses are replaced by new. Without radical change in market conditions, public policy or both, the research suggests that long-term vacancy and dereliction will remain a large problem.

2.2.4 Brownfields: a case of market failure?

For many actors in the development process, brownfield land and property markets have been characterised as ‘dysfunctional’ or suffering from ‘market failure’. In their report on the National Brownfield Strategy for Canada, the National Round Table on Environment and the Economy (2003:29) points out:

‘Markets, the free exchange of goods and services, do not always work well. When they fail, or are imperfect, actions that increase the collective national wealth may not take place. This is the case for brownfields. There are a number of significant market failures that prevent redevelopment of land…’

The same report categorises market failures as those causing developers to:

- Undervalue commercial benefits – for example, developers may not take into account the positive impacts of redevelopment on the ability of other firms and assets in an area to produce wealth, or developers choosing between greenfields and brownfields may not recognise the cost savings from compact developments;

- Overvalue costs – for example, when buyers of land know more than sellers about the environmental risks of land, problems of adverse selection are introduced and some exchanges of land may not occur; and

- Exclude social and environmental benefits – for example, private markets may fail to capture collective benefits such as environmental benefits, improved neighbourhoods and health impacts.

Similar arguments are posited in the UK. For example, in a response to a select committee report on the need for a new regeneration framework, the Government (ODPM, 2002)³ suggested that:

‘Market failure occurs when resources are inefficiently allocated due to imperfections in the working of the market mechanism. Four examples of market failures which can affect the economic, social and physical regeneration of deprived communities are:

- Externalities;

- Informational deficiencies;

- Scale economies; and

- Bounded rationality.’

These can best be summarised as follows:

- Externalities occur, for example, where prices and profits do not reflect the wider costs and benefits to society of different economic uses. This equates to the

³ The Green Book (HM Treasury, 2003), which deals with appraisal and evaluation in central government, also points out that markets/institutions may not achieve an efficient outcome for a number of reasons related to market failure: public goods, externalities, imperfect information and market power.
Canadian example of undervaluing commercial benefits, where the benefits of improvements to the physical environment or contamination removal, whilst generating wider societal benefits, do not create the same benefits for developers.

- Informational asymmetries reflect the high and uncertain risks attributed to brownfield land in depressed or unproven locations by developers and investors. Recent research (Colantonio and Dixon, 2010) has, however, shown that perceptions of investment performance in urban regeneration areas may be too negative. For example, systematic under-pricing of regeneration markets has often been caused by a lack of information and, in fact, investment property in regeneration areas can out-perform national and local benchmarks (IPD, 2009).
- Bounded rationality also interacts with asymmetries to limit the overall amount of information to undertake rational decisions. Some development locations may be avoided therefore because of lack of information.
- The lack of scale economies or indivisibilities in property markets may also mean that, for example, assembling sites which are disaggregated may not make the development worthwhile.

'Site abnormals' or additional costs for bringing brownfield sites back into use vary according to the precise nature of individual sites so real market failure is often symptomatic of cases of sites which in economic terms remain unviable in the long term. A simple categorisation of sites can help explain this typology in more detail. As Figure 2.5 shows, brownfield land can be categorised according to the impact of site abnormals on the ability of the private sector to redevelop a given site, with Category 3 sites equating to unviable, hardcore sites. In contrast, Category 1 sites remain least at risk, with Category 2 at the margin.

**Figure 2.5 Categories of brownfield site (adapted from English Partnerships, 2003)**

![Figure 2.5 Categories of brownfield site](image-url)
Research by Lambert Smith Hampton (2005) for English Partnerships in ten pilot districts in England found that the main barriers to the regeneration of brownfield sites, particularly ‘hardcore’ sites were:

- Contamination—principally in term of risk and cost;
- Landownership barriers—fragmented ownership can cause problems in consolidating sites.
- Site accessibility and lack of infrastructure.
- Town planning barriers—often reflecting perceived inflexibility.
- Lack of awareness of funding opportunities by developers.
- Ecological barriers—sites which are of importance may not be re-developable.
- Development economics—market failure can impact negatively on end sales values.
- Heritage—which may require special consents.
- Timescale—developers have a short time horizon but development may take time
- Lack of clarity—often in terms of policy and its impact on the developer.
- Skills—a perceived lack of skills in local authorities
- Socio-economic barriers—which can affect market demand in an area.

More recently research by the London Development agency and Homes and Communities Agency (HCA, 2009) suggested that a variety of other factors can prevent or delay reuse of such land (Table 2.3)

**Table 2.3 Barriers to brownfield regeneration (HCA, 2009)**

<table>
<thead>
<tr>
<th>Physical barrier</th>
<th>Regulatory barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legacy of historic activities e.g. mining, leads to ground instability</td>
<td>Planning policies, e.g. inappropriate land use allocation</td>
</tr>
<tr>
<td>Lack of infrastructure – electricity, water</td>
<td>Land designated as an environmental site e.g. SSI</td>
</tr>
<tr>
<td>Poor accessibility and transport links</td>
<td>Multitude of stakeholders – can be overwhelming</td>
</tr>
<tr>
<td>Flood risk</td>
<td>Lack of market demand</td>
</tr>
<tr>
<td>Contamination</td>
<td>Land ownership issues – owner aspirations for land may be too high</td>
</tr>
</tbody>
</table>
2.2.5 Brownfield regeneration during the recession

The recent collapse of the US sub-prime mortgage market, and the related turbulence in lending markets worldwide, have exacerbated a downwards trend in property asset prices. It is still too early to say what the long term consequences of the current recession will be, but recent research in the UK suggests that the effects are already feeding through into investment, development and occupational demand, and the potential slowdown is seen as being deeper and more severe than the 1990s recession (GLA Economics, 2008; Parkinson et al, 2009; Dixon, 2009; All Party Urban Development Group, 2009; Carpenter, 2009). Given the strong focus of brownfield policy on providing additional housing the recession therefore threatens the viability of some regeneration projects.

Although housing markets are also liable to property cycles, it is clear that the proportion of land price as an element of house price has until recently been rising constantly over time (Gilg, 2005, Parkinson et al, 2009). The increasing ‘residual’, which is effectively the difference between gross development value less any profits by a house builder, must have been driven by rapidly increasing house prices since we know that until recently, profit margins of between 20-25 per cent on speculative residential development have been relatively stable (OFT, 2008). This has resulted in land cost, representing up to 40 per cent of house prices. With the collapse in house prices and a fixed level of construction costs, both land values and profit margins have been reduced, which has thrown the financial basis of volume house builders’ business models into doubt (GLA Economics, 2008, OFT, 2008). The government has come under pressure to reduce the cost to developers of developing on land currently in public sector ownership. This has led to the development, through the Homes and Communities Agency, of local housing companies which aim to help develop surplus public sector land, together with the promotion of joint ventures or private public partnerships to develop such land (Communities and Local Government Committee, 2009).

Nonetheless construction activity, and particularly house building activity has been badly hit by the recession in northern cities as the downturn has impacted on the buy to let market as well as owner occupied housing (Dolphin, 2009). In many instances this has led to chronic oversupply of apartments and low value properties in many city centres (Deloitte, 2009). This carries potential risks for the most deprived areas with further uncertainty over recovery potentially leading to further economic weakness (Parkinson et al, 2009: 32-3):

“Residential-led regeneration schemes located in less prosperous/peripheral economies, particularly where the majority of potential buyers are those relying on gaining finance through the ‘sub-prime’ mortgage market have been hit. These are now the least attractive schemes to developers”.

In comparison, despite the recession, the IPD Regeneration Index, which focuses on commercial property, has revealed a ‘surprisingly resilient’ regeneration sector, particularly at an individual sector level, and shows that long-term incentives for investment in regeneration have not been impaired by the market downturn (IPD, 2009). For example, while regeneration returns of -22.6% in 2008 have correlated closely with the downturn in the wider property market with returns of -22.1%, office and industrial properties still outperformed the UK average (IPD, 2009). However, recent research (Schulze Baing, 2010) suggests that although physical regeneration of deprived areas can benefit from target-driven policies during a buoyant market,
when the property market enters a downturn, such areas suffer a decline in regeneration activity, and therefore a more proactive, strategic approach towards brownfield regeneration is required (Syms, 2010).

It is also clear that lending to the UK real estate sector has fallen dramatically, following rapid growth for much of the past decade, which had been founded on sharply increasing commercial property prices. However with a 40% fall in prices since June 2007, net lending, although initially slow to react has also fallen by more than 50% (Figure 2.6).

**Figure 2.6** Contributions to growth in lending to real estate sectors (Source: Bank of England statistics)

![Graph showing contributions to growth in lending to real estate sectors](image)

Significantly in a recessed market, incentives to undertake brownfield development become even more significant than during a rising market. The impact of the EU Landfill Directive (Carpenter, 2005; Dixon, 2008) and the phasing out of the Landfill Tax exemption by April 2012 have both reduced the option to ‘dig and dump’ contaminated waste from brownfields. The extension of Land Remediation Relief to bring long-term derelict land back into use is, on the other hand, designed to encourage more sustainable methods of remediation and to bring hardcore sites back into use (Watts, 2009; CLAIRE, 2010). More recently the Corby case⁴ and its implications for the management of contaminated sites are still being assessed in the UK (Eversheds, 2009; Dickinson Dees, 2009).

On the other hand the new Homes and Communities agency Kickstart Housing Delivery (KHD) programme is designed to help roll out housing programmes which may have stalled. A total of £400 million of the package has been put into this to

---

⁴ This 2009 case found that Corby Borough Council was liable for public nuisance and in breach of its duty of care under the Environmental Protection Act 1990 over its management of the former Corby steelworks. In relation to the claimants, Mr Justice Akenhead said that the council’s reclamation works carried out between 1985 and 1997 were capable of leading to some or all the birth defects displayed in the 16 children involved in the court case. The borough council is due to appeal against the decision.
unlock sites that have stalled, but where development could proceed immediately. Under the scheme, the HCA would offer a contribution to infrastructure or development costs - complemented by support for affordable housing and HomeBuy Direct - for high quality housing projects that provide a mix of tenures, and the initiative is expected to deliver up to 9,000 new homes. Funding will be available to a range of organisations including housing associations and private sector developers (HCA, 2009).

Alternative funding mechanisms to grant funding (or ‘gap’ funding) are also being explored, in the wake of the recession and its perceived negative impact on regeneration and on the use of existing models of finance such as Local Asset Backed Vehicles (LABVs) and public-private partnership models (PPPs) for new schemes (APUDG (2009); IPF (2009); King Sturge (2009); Deloitte (2009) and Hackett (2009); ULI (2009). These include:

- Accelerated Development Zones (ADZs) which are a UK variant on tax increment financing schemes (TIFs), and which are intended to fund infrastructure from future increases in tax revenue created by new development.

- EU JESSICA, which has been set up as part of the 2007-13 programme of structural funds. This allows Regional Development Agencies the opportunity to use part of their structural fund allocation to create an urban development fund for use as equity, loans or guarantees rather than grant money so that the funds can be recycled over time through the cashing out and reinvestment of equity investments (King Sturge, 2009).

The planning system has also come under increased scrutiny nationally, following the Killian Pretty Review (2009). This led to the Northern Way Private Investment Commission consulting with the property industry on how to ‘de-clutter’ the planning system (Deloitte, 2009), with calls for faster response times on planning applications; more flexibility on s106 agreements; more pro-active approaches by local authorities in bringing ‘oven ready’ sites forward; closer working between public and private sectors; and perhaps a relaxing of the focus on brownfield in unsustainable locations.

Finally, recent research (Jones et al, 2009) has suggested that a key lesson for recovery from the recession and its impact globally is to develop and enhance local leadership skills and devolve more power to city regions in the UK.

2.3 Japan

2.3.1 The emergence of the concept of brownfield land

In comparison with the UK and other developed countries Japan is severely constrained by its geography (Imura, 2005). Although one and half times larger than the UK, 70% of its area is restricted by terrain which is mountainous. This has led to a concentration in population in the region known as the Pacific Belt (Figure 2.7) where more than 70% of the population is concentrated. Land use intensity therefore is very substantive and much higher than many other developed nations, with more than 40% of the population living in the three major cities of Tokyo, Osaka and Nagoya (Imura, 2005). Moreover, Japan’s population is the tenth largest in the world and is ageing faster than any other country, causing serious problems for Japanese society (Kato and Ray, 2005; Keenleyside et al, 2010).
Japan currently has the second largest global economy which was founded on the high economic growth period of the mid 1950s to late 1960s, and which shifted economic reliance away from agriculture and light manufacturing to heavy industry and services. Following the 1986-1991 boom, however (known as the ‘bubble economy’) economic growth slowed dramatically and Japan fell into recession (Kato and Ray, 2005). Japan’s demography is typical of many mature countries which face longer life expectancies and low birth rates. According to Japan’s national statistics the country’s population peaked after the 2005 census although Tokyo and its surrounding areas continue to grow. Japan also has the highest ratio of elderly people in the population (17% in 2000) which is also increasing at a rapid rate, and the longest life expectancy among OECD countries (see Keenleyside et al, 2010).

Japan’s reliance on heavy industry and its highly urbanized society have therefore combined to create a legacy of potential contamination but also a history of environmental pollution disasters particularly during the 1960s and 1970s (for example, the Toyama and Minimata incidents). This saw a closer focus on environmental legislation, based on the polluter pays principle (PPP), during the 1970s (for example, the Pollution Health Damage Compensation Law) and the establishment of the Japanese Environmental Agency in 1971.

Environmental legislation was also strengthened still further during the 1990s when the environmental law system was re-organised and the Basic Environmental Law and accompanying legislation was enacted in 1993. This law sets out the following basic principles which are also enshrined within the Basic Environmental Plan of 1994 (Ozawa and Fujii, 2009):

- The enjoyment of environmental endowments and their succession for future generations;
- The creation of a society which ensures sustainable development with a reduced environmental load; and
- The active promotion of global environmental conservation through international co-operation.
Today environmentally-related issues fall under the Ministry for Environment (MoE) or jointly between MoE and other Ministries. Local governments are also able to administer and enforce environment law within this framework and can also establish local ordinances provided they do not conflict with national policy.

In many respects, and in contrast to the UK, the Japanese approach to environmental policy has been ‘technology-based’ with a strong focus on ‘brown’ issues (i.e. waste, pollution and contamination), rather than ‘green’ issues (i.e. biodiversity and conservation) (Vinger, 2008), although Japan has made important progress in pollution reduction (OECD, 2005). It is also fair to say that the business sector (in particular, the Japan Business Federation) has also been an important stakeholder in the evolution of environmental policy in Japan (Vinger, 2008).

Indeed it was also during the 1990s that there was an increasing focus on soil contamination as changes in economic focus began to bring about the re-use and relocation of manufacturing sites, against the backdrop of increasing foreign direct investment by multinational companies in Japan (Mitsunari, 2009). As a result, the Soil Contamination Countermeasures Law was passed by Japan’s legislature, the National Diet, in 2002 with the accompanying legal framework implemented in 2003 (Box 2.3).
Box 2.3 Soil Contamination Countermeasures Law (SCCL), 2003

Under this Law, an owner, manager or occupant (i.e., landholder) of land may be obliged to investigate land to determine when there is suspected contamination from the operation of a facility used in the process of making, using or disposing of a certain number of harmful materials (Article 4), or when a specified facility using specified hazardous substances is closed (Article 3). In addition the Law lists some 25 contaminants together with corresponding limits for each.

If such land is found to be contaminated and is to be cleaned up to protect the local residents the polluter may be required to clean up, but if it is not possible to trace the original polluter, the landowner may be required to clean up the site (see below: from MoE, 2006)

In contrast to the UK, however, urban regeneration policy has not explicitly referred to brownfields. For example, the Urban Renaissance Special Law, established in 2002, focused primarily on targeting funding to priority areas based on current population and industrial concentrations (Otsuka and Abe, 2008). This is in many ways surprising since unregulated Japanese urban sprawl was a key characteristic during the post-war period, particularly during the 1960s (Sorensen, 2002).

However, brownfields were not seen to be a policy focus, and in fact there was no ‘official’ definition of brownfields (or ‘potentially contaminated sites’) until 2007 when the Ministry of Environment (2007) suggested they were:

‘lands which are unused or with extremely limited use compared to their intrinsic value because of existence or potential existence of soil contamination’.
In fact, this parallels the US definition of brownfields much more closely than that of England, and reflects the influence that US thinking has had on the Japanese regime. However, the relatively late focus on brownfields, and its continuing, apparent lack of integration with urban regeneration policy probably also reflects key characteristics in the Japanese planning and urbanization model. For Sorensen (2002) this is characterised by a strong focus on economic growth; a weak relationship between planning and civic society; and a strong preference for major infrastructure projects, promoted through the use of ‘land readjustment’ (see also Real Estate Companies Association of Japan, 2009), at the expense of regulating private sector activity. Operationally, in Japan, land use planning is enforced at the national, prefectural and municipal levels (Imura, 2005). For example, the National Land Use Planning Law of 1974 was introduced during a period of boom and speculative investment in the property market and this serves as the basis for local plans, with prefectural governors given the power to prevent rising land prices through land price control areas. Generally planning systems and their accompanying citizen participation networks in Japan are characterised as being much weaker than their European counterparts (for example, UK and Germany). This partly reflects the fact that land has been seen as an investment asset in Japan with tighter controls being viewed as a potential disruption to the wider economy (Imura, 2005). In Japan, urbanisation is predicated on a masterplan framework which also distinguishes between Urbanization Promotion Areas and Urbanization Control Areas, with development control (based on zoning) being operated more strictly in the latter (Kidokoro et al, 2007; MLIT, 2009).

An example of liberal planning and its impact on environment in Japan, for example, is highlighted by the boom of large scale projects which used up agricultural land at a substantial rate during the late 1980s and early 1990s. In this sense physical planning is not well co-ordinated with environmental planning (OECD, 2002). This is characterised by the rapid urbanisation which still continues to grip Japan. For example, Figure 2.8 compares the uptake of agricultural land for urbanised land uses in both Japan and England: although the amount of land taken for new urban uses in Japan has declined slightly in recent years the overall amounts taken substantially exceed those in England. It is also true to say that land ownership structures are more fragmented than in England, particularly on the urban fringe (Sorensen, 2002).

---

5 These are projects which are conducted within city planning zones in Japan and promote the greater use of housing land and land for public use through the consolidation of sites (often agricultural land) and the provision of infrastructure.
Finally, a further difference between England and Japan is the nature and focus of the house building industry. In England brownfield has been a key focus for house builders over the last decade because the 60% house building target was a national policy (Dixon, 2007). House builders have increasingly sought to engage with the sustainable development agenda therefore.

Japan's house building industry however is very different to that of England (Johnson, 2007). Japan's new housing market is the second largest in the world (Barlow et al, 2003): for example, despite the recession, over 1m new dwellings were started in 2008, and since 1970 Japan has produced about 1.4m homes each year (Johnson, 2007). At about 13 new units per 1000 people per year the rate of new build is over 12 times that of the UK.

In fact new housing represents about 80% of the total of annual domestic property transactions in Japan, in comparison with 10% in the UK (Barlow et al, 2003). Japan's housing is also characterised by a substantial focus on houses, with some 90% being detached and many of these commissioned by the owners on plots of land (akin to 'self build' in the UK) and a strong focus on new build with short asset lives and therefore inherent obsolescence which impacts on value (RREEF, 2009). This is founded on a culture of 'scrap and build' where homes have been replaced every 26 years (Barlow et al, 2003; Johnson, 2007) although the National Institute for Land and Infrastructure Management currently have a programme of grants in place to encourage the private sector to adopt a more proactive approach towards extending the lifetime of houses.

Added to this is the fact that the construction industry in Japan is a major political and lobbying force. The house building industry in Japan is founded on smaller local based housing suppliers using traditional craft skills (about 80% of the market) and larger regional/national suppliers using factory-based systems and supplying major urban areas (for example, Sekisui House and Misawa Homes). Despite this, the

---

6 See section 2.2.1 above
7 Data from MLIT (http://www.mlit.go.jp/toukeijouhou/chojou/stat-e.htm)
8 Comparative data suggests that in Japan the ratio of demolished houses to new houses was 39% in 2003 compared with 5% in the UK (Johnson, 2007).
industry in Japan is still relatively fragmented in contrast to the UK; the largest 18 companies accounted for only 19% of production.

In relative terms the reduction in house building supply in Japan has been relatively lower than in England (Figure 2.9), reflecting the continued demand for new units in a highly urbanised country, where the lifetime of homes is lower than England. However, as Figure 2.9 shows, the ‘lost decade’ of the 1990s is in evidence with a plateau in starts during this period. The difference in absolute numbers of starts is shown in Figure 2.10.

**Figure 2.9 Comparison of house building starts: England and Japan (1993-2008 Index) (data: CLG and MLIT)**

![Graph showing index of housing starts (1993=100) for England and Japan from 1993 to 2008.](image)

**Figure 2.10 Comparison of house building starts: England and Japan (1993-2008) (data: CLG and MLIT)**

![Graph showing units started for England and Japan from 1993 to 2008.](image)
2.3.2 Brownfields and contamination

It is important to note that comparing England and Japan in terms of the amount of brownfield is difficult because of differences in data collection. Nonetheless using official and unofficial data sources enables a comparative picture to be built up (Table 2.4).

In Japan Sato (2007) puts the figure of ‘brownfields’, or ‘potentially contaminated sites’, at 272,000ha. Using an estimating procedure to represent the probability of contamination, Yasutaka et al (2007) estimates this as the equivalent of 898,387 potentially contaminated sites (i.e. may or may not be contaminated). From this a figure of 331,612 sites is derived (Yasutaka et al, 2007), or 113,000ha for contaminated sites (MoE, 2007). Finally, MoE (2007) and Yasutaka (2007) estimate the number of hardcore sites as being 28,000 ha, as represented by those sites where clean-up costs under the SCCL could amount to more than 30% of land price.

It is clear from the data that there is a relatively higher proportion of Japan’s urban area that comprises brownfield land (15.5%) than is the case in England (5.1%). As regards contaminated sites the total number in Japan is higher than England, and it is noticeable that since the introduction of the Soil Countermeasures Act in 2003 the number of investigations has risen steadily (Figure 2.11): in the period 1991-2003 2673 cases were investigated; in the period 2003 to 2007, 4728 cases were investigated. This compares with 659 sites being investigated in England under the EPA 1990 Part2A in total (by the end of March 2007) (Environment Agency, 2009). However it is also true that the majority of soil investigations are still voluntary in Japan: on average about 70% of the total annually between 2004 and 2007 (Yasutaka, 2009).

---

9 For the remainder of the report, brownfields used in a Japanese context are taken to mean potentially contaminated sites (i.e. sites which may or may not be contaminated).
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>England</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Total land area</strong></td>
<td>130,000</td>
<td>378,000 km²</td>
</tr>
<tr>
<td><strong>B Urban land area</strong></td>
<td>12,280</td>
<td>12,560 km²</td>
</tr>
<tr>
<td><strong>D Total population</strong></td>
<td>49.13 thousand</td>
<td>127.28 million</td>
</tr>
<tr>
<td><strong>D Overall population density (D/A)</strong></td>
<td>378 (Persons/km²)</td>
<td>337 (Persons/km²)</td>
</tr>
<tr>
<td><strong>E Estimated total area of brownfield sites (PDL)</strong></td>
<td>62,130 ha (PDLs)(4)</td>
<td>195,213 ha (Unused or less-used land in urban area)(5)</td>
</tr>
<tr>
<td><strong>F Contaminated sites</strong></td>
<td>300,000 ha (England and Wales)</td>
<td>113,000 ha (All over Japan) (1)</td>
</tr>
<tr>
<td><strong>G Hardcore sites</strong></td>
<td>16,523 ha Hardcore sites in England</td>
<td>28,000 ha (PBFs) (3)</td>
</tr>
<tr>
<td><strong>Brownfields as proportion of total urban land area</strong>(E/B)**</td>
<td>5.1 % (PDL)/(Urban land area) England</td>
<td>15.5 % (Unused or less-used land)/(Urban land area)</td>
</tr>
<tr>
<td><strong>Hardcore Sites as proportion of total urban area</strong>(G/B)**</td>
<td>1.3 % (Hardcore sites)/(Urban land area) England</td>
<td>2.2 % (PBFs)/(Urban land area)</td>
</tr>
</tbody>
</table>
Notes to Table 2.4

2) Yasutaka et al (2007)

(PBFs) potentially brownfields sites

This covers sites where the soil contamination countermeasure cost exceeds 30 percent of the land price. The number of Potentially Brownfield sites was calculated by multiplying the number of contaminated sites (CS) (disused and operating manufacturing, gas stands and dry cleaners in Japan) by the estimated probability of a CS becoming a Brownfield site (Yasutaka (2007)). This number includes not only the estimated current brownfield sites but also an estimate of ‘potentially brownfield sites’. A ‘Potentially Brownfield’ site means that although the site is not brownfield now, it will be categorised as brownfield when the CS is closed down. Moreover, it should be noted that the definition of “Brownfield site” in MoE’s research (2007) is “a previously used site that cannot be redeveloped due to the presence, or potential presence, of contamination”, which is quite different from the UK definition.

4) EPS
5) MLIT (2003)

Unused or less-used land in urban area
Vacant land and vacant buildings as well as parking lots and stock yards for construction material

6) DCLG’s Urban Settlements 2001 data

7) 2005 Census (MIAC/Ministry of Internal Affairs and Communications of Japan)

Comment [TD2]: I am assuming now that PCS do NOT figure in our table as a separate item because they are used to calculate the PBF figure??

We confirmed this with Tatsuo and he has agreed to use Contaminated Sites (CS) in this explanation.
However Article 3 of the SCCA provide for an exemption if a company is expected to resume operations in the future, and only some 1-2% of potentially contaminated sites have so far been investigated in Japan: for example, between 2002 and 2007 some 3,313 (77.8%) of factories involved were able to avoid investigation (Abe and Otsuka, 2009). In other words the application of the SCCA has so far been very limited in practice because the vast majority of contaminated properties are not subject to an Article 3 (or indeed Article 4) investigation (see Box 2.3). Moreover, local regulations may also vary, and it is this additional complexity, combined with the fact that the SCCA is not designed to underpin property transactions per se, that means buyers of land and property in Japan should pursue due diligence procedures at all times (Ohta and Ticehurst, 2008).

Because relatively few site investigations were being implemented (usually only when a factory use was discontinued), and because of an excessive reliance on dig and dump and lack of specific guidance on disposal of material, the SCCA has recently (April 2010) been amended (Baker and Mackenzie, 2010). The amendments increase the sub-categories of Designated Areas through two categories: (i) areas requiring remediation; and (ii) areas where the authorities must be notified when the area is developed and registered accordingly. Sites are designated in the first category if the soil contains one or more of the 25 specified substances causing damage to human health and the prefectural governor can require landowners to implement measures to deal with the risk. The second category applies to land which has one or more of the 25 specified substances but where there is no damage to human health. Here remediation is not required until the land is to be developed at which point the landowner must notify the prefectural governor.

At the time of writing there were amendments to the SCCA being implemented in April 2010. These include an obligation for those involved in residential construction and other land development work exceeding a certain land area to submit a notification. The prefectural and city governments can then request an investigation if contamination is suspected. In addition there will be an expansion of application procedures on sites exceeding 3000 sq m in area.
According to Baker and McKenzie (2010) the Amended Act also:

- Includes provisions that trigger a soil investigation whenever changes are made to an area of land over 3,000 sq m in size;
- Aims to make soil contamination reporting and investigations an expected component of real estate transactions (i.e. all areas where authorities must be notified on development must be disclosed to the public). The success of these new measures will depend on the level of public awareness of soil contamination;
- Enables Landowners to identify the existence of soil contamination from a voluntary investigation, and request the prefectural governor to categorise the land as a Designated Area if necessary based on the results of the voluntary investigation; and,
- Strictly regulates the disposal of any contaminated soil by requiring that (i) the level of contamination of the 25 substances must be checked before any soil is excavated and removed from the site, (ii) the removed soil must be treated by a licensed factory or plant, (iii) a license will now be required in order to remove/transport, dispose of and treat the contaminated soil, (iv) a manifest and clear system has been adopted.

Generally speaking, dig and dump remediation techniques have tended to predominate in Japan (MoE, 2006), as is the case in England, and this presents a considerable challenge for the country in terms of finding more sustainable methods of in situ remediation. In terms of grant mechanisms, the Japanese Environment Association (JEA) manages the Soil Contamination Countermeasures Fund to provide assistance to restore the soil environment, and the Supporting Fund for Environmental Restoration and Generation aimed at providing aid to businesses which are cleaning up contamination. The grant system operates through a process of dispensing grants to local governments which can then dispense targeted grants to companies to clean up particular sites on applications. There is also the opportunity for businesses to obtain interest subsidies from the JEA if they currently have a loan through the Development Bank of Japan or the Okinawa Finance Corporation (JEA, 2009). More recently other private sector initiatives have been developed to help bring brownfields back into use (for example, Sumitomo Trust’s Eco-Land Fund, a contaminated land purchase and rehabilitation fund, operated by Green Earth Co., Ltd., based around a loan facility and the establishment of a real estate trust).11

2.3.3 Brownfield regeneration during the recession

In Japan land price movement is particularly important to consider because it forms the basis for pricing property (see Box 2.4).

---

11 This is intended to bring contaminated plots of land back into use by buying them for resale after cleanup (see http://www.sumitomotrust.co.jp/csr/innovation/real-estate/04english.html).
Box 2.4 Property ownership and property pricing in Japan

Freehold and ‘land leasehold’ are the two main forms of land ownership in Japan (MLIT, 2006; Iwata and Yamaga, 2007). A land lease applies to a building and not the land, and in this context is only granted on condition that the building is owned by a party that is different from the land owner. Therefore under this form of leasehold, tenants own the home and lease the land beneath it by occupying the land under a tenancy for years. Ultimately they have to return the land and give up the premises at the expiration of the lease term.

As far as the residential market is concerned the separation of land and building value in Japan, combined with the cultural distinctiveness of short housing lifespan (i.e. ‘scrap and rebuild’), means that residential building values depreciate very rapidly over 10-15 years (Johnson, 2007).

In Japan land is regarded as a separate asset from the building and so the term, ‘land price’ is usually used instead of ‘property price’. Therefore ‘property price’ in Japan usually comprises land price plus building price which are calculated separately. Japan’s lease structures on commercial buildings are of two types; standard 2-5 year leases with perpetual lease rights or fixed term leases from 10-30 years with no mandatory right of renewal. There are problems with transparency of rental data in Japan particularly on agreed rents, which not only reflects the more common and much shorter lease terms in Japan, but also the ease of comparability for such leases under renewal. Landlords therefore are less willing to disclose rental information which creates an opaque system (RREEF, 2008a).

In the aftermath of the second world war Japan’s economy expanded at a dramatic rate until the early 1970s when the first oil crisis occurred, often at rates as high as 10% pa GDP growth. As Japan’s strong economic performance continued during the 1970s and 1980s at rates of growth of 4-5% pa a ‘bubble economy’ developed (‘Heisei’ boom), built on inflated asset prices (including land and property); expansion of monetary supply and credit; and overheating in the economy (Shiratsuka, 2003; Hirayama and Ronald, 2008), but also the encouragement during the 1980s of a ‘minkatsu’ culture predicated on the goal of economic development (Shibata, 2008). This period saw a dramatic rise in Japan’s property values to about 20% of the world’s wealth in 1991 (Kaijozi and Kaijozi, 2004). With such high stakes and a raid turnover in inner city sites land sharks or gangs forcing existing residents out also became commonplace (Shibata, 2008).

However, the bubble burst and Japan entered a long period of recession during the 1990s, known as the ‘lost decade’, with rates of growth at less than 2% pa. Although the economy began to recover during the first part of the 2000s, the current economy is still not as strong as it once was. The pattern of boom and subsequent bust around this period is shown in Figure 2.12, which compares the pattern of land price movements in Japan and its six main cities where there is a clear peak in values in 1992, a subsequent decline and then a slight recovery more recently before a further decline.
Figure 2.12 Residential Land Price Index: Japan (data: MLIT)

Figure 2.13 compares the pattern of residential land prices in Japan and England over the period 1994-2009. As can be seen, the Japanese recession following the peak of 1991 has lasted a considerable time, and the recent bottoming out in 2007-2008 preceded a more recent fall in 2008-2009. In contrast, the recent downturn in England (and Wales) appears to have been relatively more dramatic.

Figure 2.13 Comparison of Residential Land Prices: England and Japan (data: CLG and MLIT)

A similar picture emerges in relation to house prices, with significant increases globally in house prices from 2000-2009, but in Japan a very much flatter market (RREEF, 2009). This is partly attributable to some key differences. At 61% in 2008, Japan’s home ownership rate is lower than the US and the UK but higher than some
continental European countries such as France and Germany. The so-called buy-to-let loans that were popular in the UK did not gain popularity in Japan during the recent housing boom, perhaps because buyers were influenced by the lost decade value decline in 1990s. Because Japan’s home ownership rate is moderate (two of every five households are renters) relative to peer countries, mortgage debt as a share of GDP is also maintained at a sustainable level (RREEF, 2009).

Commercial real estate performance has also followed a similar pattern, although the recent fall in the index has been less severe than in the residential sector, reflecting the relatively stronger fundamentals of capital and rental growth in the commercial property sector (Figure 2.14).

**Figure 2.14 CBRE Index (Data: CBRE)**

![CBRE Index](Data: CBRE)

Recent research (RREEF, 2009) suggests that since June 2009 there have been signs in a recovery from the recent economic downturn in Japan. Also, unlike the USA and Europe, the balance sheets of major Japanese banks are relatively healthy because of lower sub-prime mortgage lending volume; lower levels of foreign investment outside Asia and less exposure to securitised products such as collateralised debt obligations (RREEF, 2008b). Nonetheless, bank lending on real estate was also curtailed as a result of the recent credit crunch, and this has had an impact on some of the larger real estate companies in 2008, some of which went bankrupt (RREEF, 2008b) (Figure 2.15).
The wider recovery in the Japanese economy is expected to be based around an increase in demand for export goods, the reduction in surplus stocks and new public spending. In the real estate market, despite the recession, Tokyo still led the world in terms of the volume of international property deals during the first half of 2009.

It is interesting to note that part of the response to the economic recession of the late 1990s was in fact to focus on urban redevelopment policy as a key platform for revitalising large cities, in addition to monetary and fiscal policies (Hirayama, 2005; Taketoshi, 2009). The Urban Renaissance Special Law of 2002, for example, followed the publication of the 1999 report (Economic Strategy Council, 1999), Strategy Towards the Revitalization of the Japanese Economy. The aim was to revitalise urban areas and their economies by promoting private investment in urban development projects. This came through the passing of the Emergency Economic Plan in 2001 which promoted 21st century urban regeneration; the securitisation of real estate properties and transactions; and PFI initiatives in redeveloping vacant plots formerly occupied for public housing.

The Koizumi administration pursued these policies rigorously to shift the emphasis away from ‘development’ towards ‘competition’ (Hirayama, 2005): incentives were introduced for encouraging private investment, firstly, with deregulation, to maximise private initiative, and then with financial supports and tax relief measures for businesses, against the backdrop of the credit crunch in the financial market at that time (Taketoshi, 2009). In short the aim was to provide a deregulated system which would enable cities to regenerate and provide the engine for economic growth nationally, with Tokyo seen as the most important in terms of priority (Hirayama, 2005). However, critics of this policy have suggested that ‘hot spots’ of activity have been created at the expense of ‘cold spots’ within cities and that polarisation in growth has occurred within Japan itself in terms of Tokyo and the rest of the major urban centres (Hirayama, 2005). Nonetheless the programme has also spawned a range of regeneration projects within Japanese cites including Tokyo and Osaka. For example between 2002 and 2007 some 65 areas (Emergency Urban Revitalization Zones) (6,612 ha) were selected for urban revitalisation programmes which included grant assistance and fast track planning procedures (often omitting public hearings) (Shibata, 2008) (see Box 2.5).
Box 2.5 Japan’s Urban Planning system

Japan’s current urban planning system was established through the City Planning Law of 1968, which replaced the old City Planning Law of 1919. Although the law has been amended from time to time, the basic structure has remained relatively unchanged: the national government sets a framework which is applied nationally and locally (through municipalities and prefectures). There are two layers of local government, comprising 47 prefectures and 1,800 municipalities. The prefecture designates the City Planning Area (CPA) and this can cover several municipalities and may be fragmented. Urban promotion Areas and Urbanization Control areas are also designated through the CPA master plan process (Kidokoro, 2008). More recently the National Land Sustainability Plan Act ((2005) was introduced to replace the Comprehensive National Land Development Act, 1950 with an emphasis on sustainable development rather than economic development. The 2005 Act also introduced a two tier plan system based around national/regional blocks, the latter represented by national government regional offices, local government and private sector organisations (Kidokoro, 2007). Tokyo continues to be see as a ‘special case’ within Japan and the first long term development plan for the greater Tokyo area was formulated in 1959 modelled on the Greater London Plan (Keenleyside et al, 2010) with continuous evolution up to the present day Basic Plan of 1999 which is based on a distributed network structure of polycentric urban development.

Distinctively the Japanese real estate system is also characterised by securitisation of real estate assets through the Law on Securitisation of Qualified Assets 1998 (Real Estate Companies Association of Japan, 2009) and the innovative financing of urban renewal through special purpose funds (Development Bank of Japan, 2009). Implicit in these policies was a recognition that brownfields could be promoted as a development asset. This was highlighted in the Urban Renaissance policy which referred to the redevelopment of former areas of heavy industry (Otsuka and Abe, 2008). It is also reflected implicitly within the National Land Sustainability Plan of 2005 which is designed to promote the utilisation, improvement and conservation of national land through (MLIT, 2006):

- Utilisation and conservation of national land resources such as land, water and others;
- Utilisation and conservation of coastal areas (including items concerning exclusive economic zones and continental shelf);
- Prevention and alleviation of disasters such as earthquakes, floods, windstorms and others;
- Arrangements and improvements of the size and location of urban/rural areas;
- Appropriate location of industries;
- Utilisation, improvement and conservation of transportation facilities, information and telecommunication facilities, research facilities concerning science and technologies and other important public facilities;
- Protection of resources and utilization and improvement of facilities, regarding culture, welfare and tourism; and
- Conservation of environments including the creation of a sound environment, and the formation of sound landscape.

---

12 J-REITs (Japan- Real Estate Investment Trust), a market for real estate securitisation, were also established at this time, in a bid to revitalise the real estate market in Japan (Taketoshi, 2009).
Nonetheless brownfields are not an explicit component of this policy, as they are in England, and brownfields continue to be viewed as risky and problematic in Japan.

2.4 Summary and comparisons

Japan’s environmental history is perhaps best encapsulated by two themes: the tragedy of sustained environmental damage during the rapid period of economic growth during the 1950s and 1960s, followed by the country’s success in combining the control of industrial pollution with, at least until recently, continued economic growth (Imura and Schreurs, 2005).

In contrast to England there has not been a strong explicit focus on brownfield redevelopment within the context of a sustainable development agenda, but the economic recession of the 1990s was seen as an broader opportunity to re-invent Japan’s urban areas with a liberal, relatively unregulated ‘competition’ policy built around the Urban Renaissance Special Measure Law. Japan’s relatively weak planning system and its lost decade following the bubble economy of the late 1980s have led to a policy emphasis on ‘competition’ in urban regeneration. Japan’s distinctive housing and real estate markets are very different to England’s but Japan’s resilience to continuing flat property markets may hold lessons for the UK and elsewhere in the wake of the current recession.

It is important to also understand that Japan’s planning system is not only less restrictive than England: it is also relatively less well-integrated with environmental policy. Moreover there is not the same focus on house building on brownfields as there is in Japan and in any event the nature of the Japanese house building industry is also very different to that in England.

In terms of contaminated sites in both England and Japan, voluntary cleanup continues to predominate. In Japan, exemptions within the SCCA appear to have contributed to the relatively slow progress in the clean-up of contaminated sites. In both countries, ‘hardcore’ sites pose a particular issue, particularly in the context of an economic recession which makes it less likely that marginal sites will be cleaned up and redeveloped.
3 Case Study Contexts: Manchester and Osaka

3.1 Introduction

This section examines the history and growth of both Manchester and Osaka and compares regeneration policy and practice in the two cities, in the context of brownfields (including hardcore sites) and the impact of the property recession on land and property markets.

The chapter concludes with a comparison of both cities and their approaches to regeneration and brownfields in the context of past recessions and the current recession.

3.2 Manchester

3.2.1 History and growth

Manchester is often regarded as the first industrial city and was first established in the Roman period before its subsequent growth to a major provincial city and then rapid expansion during 1750-1850. In the nineteenth century Manchester became the global centre of the huge cotton trade and was nicknamed ‘Cottonopolis’ (NWRDA, 2009). Manchester’s growth was founded on manufacturing but also warehousing and commercial activities including banking and financial services as well as transport based around the Manchester Ship Canal, which was opened in 1894 (Mace et al, 2004). By the beginning of the last century Manchester was the ninth largest city in the world (NWRDA, 2009). But by the 1930s textiles were seeing a dramatic decline and the emphasis shifted towards manufacturing and more recently services and knowledge-based industries.

Today Manchester is generally considered to be the UK’s third city13, with a population of 458,100 in 2007 (ONS, 2009). It is also ranked as a ‘gamma’ city in the GaWC programme (GaWC, 2009). Manchester itself is located within one of the UK’s largest metropolitan areas. The metropolitan county of Greater Manchester(GM) (which includes the cities of Manchester and Salford plus the adjoining metropolitan boroughs of Stockport, Tameside and Trafford to the south and Bolton, Bury, Oldham, Rochdale and Wigan to the south) has an estimated population of 2,562,200, and the Greater Manchester Urban Area a population of 2,240,230 (Office of National Statistics, 2001)14 (see Figure 3.1).

---

13 There is some debate over whether the title second city (after London) belongs to Birmingham or Manchester, but on the basis of population Manchester is ranked third.

14 The Manchester City Region (MCR) is an area of England centred on Manchester. It was one of eight city regions defined in the 2004 document Moving Forward: The Northern Way, as a collaboration between three regional development agencies. It is a larger entity than Greater Manchester with the addition of five local authorities: High Peak, Warrington and the former boroughs of Congleton, Macclesfield and Vale Royal.
However, Manchester itself, the smaller geographic area within GM and MCR suffered long-term decline in the 1970s as jobs were lost to the wider conurbation. During the period 1971-1997, for example, total employment in Manchester fell by 26% and manufacturing industry was particularly badly hit. In turn Manchester’s population also fell from one third between 1951 and 1981, and although there was a subsequent recovery, the population fell again from 438,500 in 1991 to 414,819 in 2001 (Mace et al, 2004; 2007).

Nonetheless, the wider Manchester City Region is seen as an engine of economic growth (Manchester Independent Economic Review, 2008a; 2008b). For example:

- The Manchester City Region is now the main driver of the Northwest economy and home to a population of over 3 million residents (47% of population in the NW).

- Almost 90 percent of the net increase in the Northwest’s population, and almost half (48%) the net increase in the Northwest’s employment, were related to MCR’s growth in the last decade.

- The City Region generates 50 percent of the Northwest’s total economic output and is continuing to develop as a major centre of knowledge intensive industries.
The vision is that by 2025 the Manchester City Region will be a ‘A world class city region at the heart of a thriving North’ (NWRPB, 2008). Nonetheless Manchester is currently a city in recession, characterised by:

- Falling business confidence levels.
- Rising input costs, which is mirrored by a decline in investment intentions.
- Falls in sales and orders.
- Depressed land and property markets.

Moreover, the relative success of the City Centre in Manchester over the last decade is in stark contrast to the surrounding communities which suffer some of the highest concentrations of crime, and poor health and housing in the country: for example, some 27 of its 33 wards are among the most deprived 10% nationally (Lambert Smith Hampton, 2005). Moreover large parts of Manchester also suffer poor quality environment and infrastructure despite the City’s successful regeneration projects (NWRDA, 2009).

### 3.2.2 Regeneration: Policy and Practice

The importance of Manchester lies in its relationship with the wider region in the North West of England and is its contribution to the growth of the MCR (Manchester Enterprises, 2006). The *Regional Economic Strategy* (RES) (NWDA, 2006), for example, identifies the factors that are critical for creating sustainable growth:

- Develop transport infrastructure to connect the region internally and with the rest of the world and use it more effectively;
- Ensure appropriate land use, both in terms of brown-field land and new employment sites, which will be needed to cater for indigenous growth and inward investment in knowledge-based service industries, manufacturing and distribution;
- Develop the housing offer to facilitate growth;
- Ensure planning supports sustainable growth;
- Develop appropriate use and supply of energy; and
- Encourage public and private Investment.

These policies are taken forward within the GM area through the Sub-Regional Action Plan and in addition the Manchester City Region Development programme, which forms part of the Northern Way Initiative, sets out the actions for local and regional partners and national government (Manchester Independent Economic Review, 2008b). There is therefore a four tier approach:

- Regional/sub-regional level: RES and Sub Regional Action Plan.
- City region level: City Region Development and Northern Way
- City level: Community Strategy.
- District level: Strategic Regeneration Frameworks.
Within the overall approach to economic development in the MCR, there has been a much researched urban regeneration policy landscape in Manchester itself. During the late 1980s and early 1990s Manchester’s active regeneration policies were based around the Central Manchester Development Corporation (CMDC) which existed between 1988 and 1996, and which brought together local government, government agencies and the private sector, and established the basis for the partnership models that are still characteristic of the city today (Mace et al, 2004). Indeed, Robson (2002) refers to the widespread recognition of the ‘Manchester model’ of regeneration, characterised by the City Challenge in 1991, and subsequent Moss Side and Hulme Partnership, which saw the successful regeneration of Hulme to the immediate south of the city centre. Following a long period of decline, Manchester’s city centre has also undergone extensive redevelopment and regeneration over the past two decades, spurred on by the 1996 Real IRA bomb and the successful staging of the 2002 Commonwealth Games (Morris, 2009).

The essence of the model, which is also the basis for the Urban Regeneration Companies now operating in the sub-region (central Salford and New East Manchester), is a delivery body with a semi-autonomous executive (serviced by officers seconded from relevant council departments). Such bodies have a commercial focus but promote public-private partnering. The model was also characterised by short lines of decision-making, involving fast-tracking planning applications, and with a high degree of community involvement (Manchester City Council, 2004). Therefore CMDC was seminal in the City for both its strong partnership arrangements and for its strategic focus, which was designed to bring population back to the city centre; diversify the economic base of the city and develop the strengths of the financial service sector (Mace et al, 2007).

More recently, within the City, the Manchester Partnership (Manchester’s Local Strategic Partnership) brings together key sectors, organisations, and community representatives that are actively tackling key problems that residents say affect their lives. The Partnership is designed to deliver the Community Strategy for Manchester, which outlines a vision for a ‘world-class city’ by 2015, and the priorities of the Community Strategy are reflected in Manchester’s Local Area Agreement (LAA), which is the partnership’s delivery plan for the next three years. Manchester’s new Multi-Area Agreement and its status as a city-region have also built on its ambitions to enhance its status as an economic growth engine in the North of England and the wider UK economy (MIER, 2008b; Shapira et al, 2009; AGMA, 2009).

Within the City there is a strong focus on East Manchester. Indeed the New East Manchester (NEM) urban regeneration company was the second to be set up in Manchester in 1999, as a partnership between the city council, the NWDA and English Partnerships (now part of Homes and Communities Agency). The future vision of the area is set out in the East Manchester Strategic Framework 2008-2018 (NEM, 2008).

The geographic extent of NEM is 1100ha to the east of Manchester City Centre but includes substantial areas of deprivation and high unemployment (NEM, 2008):

- 33,162 residents (54.2% of the population), live in neighbourhoods classified as within the 1% most disadvantaged communities in England; and

---

16 Manchester and Leeds achieved city-region status in 2009. This was founded on the Government’s Review of Sub-national Economic Development and Regeneration (CLG, 2006b).
• 54,914 residents (90% of the population) live in neighbourhoods classified as within the 10% most disadvantaged communities in England.

The key characteristics of communities with this level of disadvantage are exceptionally high levels of worklessness and low household incomes, high levels of child poverty, poor educational levels and very poor health. In addition, over the past 50 years East Manchester has seen a substantial population decline, falling by just over 60% between 1951 (164,000) and 2001 (62,000). The largest population loss occurred between 1971 and 1981, although there was a significant decline as late as between 1991 and 2001. More recently, the population has begun to stabilise since the early 2000s, with a modest population increase in the past few years.

Moreover the area suffers dereliction and contamination problems (NEM, 2008: 16):

‘While East Manchester has great physical assets, including historic buildings and waterways, many of these have suffered from neglect and under-investment as employment and population has declined. The result is a legacy of derelict and under-used buildings and large areas of fragmented, vacant and degraded land, although substantial investment has transformed part of the area. The level of contamination in large sites considerably reduces the scale of readily developable land’.

NEM has benefited more recently from funding through the Manchester and Salford Housing Market Renewal pathfinder; the New Deal for Communities programme, and additional Single Regeneration Budget funding from 2002 through the Eastside Manchester Initiative covering the Miles Platting, Ancoats and Northern Quarter areas of Manchester. Despite the complexities and challenges of the area an interim evaluation of the area (EIUA, 2006) suggested that the work undertaken in the area since the late 1990s had arrested the economic and population decline of the area and put in place a strong development platform for the future.

Within NEM and Eastside Manchester key projects which have all been based on long term derelict brownfield sites include:

• Sportcity, the largest cluster of international sports facilities in the country, part of which includes the City of Manchester stadium.

• Central Business Park, a 182ha site with the capacity to include up to 500,000sq m of commercial floorspace, with planning permission in the first phase of 130,000sq m.

• New Islington, a Millennium Community in Ancoats (Box 3.1).

Other recent key regeneration areas within Manchester include (Lambert Smith Hampton, 2005):

• City Centre with new investments in the Millennium quarter, Market Street, Spinningfields and the Southern Gateway.

• North Manchester Partnership, which is focusing on an area extending from the City Centre to the City’s northern boundary to the City’s boundary with Salford to the west and to Oldham Road to the east. This includes Collyhurst and parts of Miles Platting and Newton Heath and Ancoats to the east.
• Moss Side and Hulme with recent projects based around a new public park in Hulme, Birley Fields Business Park, Manchester Science Park and the regeneration of the Princess Road Corridor.

Box 3.1 New Islington

In 2002 the Ancoats area of East Manchester (which includes Ancoats Urban Village, New Islington and the Ashton Canal Corridor) was identified as the site for the third Millennium Community. The £250mn New Islington Millennium Community development comprises a 12.5 ha site in East Manchester including the former Cardroom housing estate, which was characterised by high crime and social deprivation. Located between the Rochdale and Ashton Canals, the site is undergoing a substantial transformation which will feature over 1,700 new homes, retail and leisure space, a new primary school and health centre alongside an eco park. The development is due for completion by 2012. In the summer of 2003 work began, and the development work on the new canals that will link to the Ashton Canal and the Rochdale Canal are now complete together with a new waterpark, ‘Cotton Fields’, which has been designed to promote a diverse wildlife, including a wetlands area, and a range of nesting boxes to attract a wide variety of birds. Both old mill workings and contamination proved to be challenging site conditions which have now been successfully resolved (source: Dixon, 2011 (forthcoming)).

More recently, New east Manchester’s discussions with Manchester College resulted in the acquisition of the Rolls Royce Crossley Works site\textsuperscript{17} to develop a local and sub-regional resource centre for Greater Manchester for learners with complex needs and disabilities in partnership with the Together Trust's Bridge College, who will relocate from their current Stockport site (NEM, 2009).

Despite the significant levels of investment in area-based initiatives (ABIs) in Manchester and indeed greater Manchester, including the Single Regeneration

\textsuperscript{17} Investment of £3.6m from NWDA will secure the site under public ownership and pay for demolition, decontamination and preparation of the site. Remediation will make the site ready for future redevelopment, which will be for employment or commercial uses which tie in with wider plans for the area (source: www.placesmatter.co.uk).
Budget, New Deal for the Communities and the Neighbourhood Renewal Fund, hard evidence on their impact is still relatively limited, and in cases where transformations have been achieved it is unclear whether this has resulted in dispersal or replication of spatially-based concentrations of deprivation elsewhere (MIER, 2009d). However, it is recognised that ABIs need to be more integrated with other activities, and that action needs to be across a range of spatial scales, and not just locally-based (AGMA, 2009).

3.2.3 Brownfield: nature and extent

Using NLUD data for the period 1994-2008 enables a spatial picture of reuse to be built up. The maps produced from this analysis are provided in Appendix 1 of the report.

Detailed analysis of NLUD data by University of Manchester for this research report revealed the following patterns in the reuse of ‘short term’ derelict and vacant land/buildings (Categories A, B and C between 2003 and 2008) and ‘medium term’/long term’ derelict and vacant land/buildings (Categories A, B and C between 1998 and 2008) revealed the following findings (Table 3.1).

- For England as a whole, the total area of vacant and derelict sites decreased between 2003 and 2008. This is in line with estimates produced by CLG comparing NLUD 2002 and 2007 data (see CLG, 2007). Medium and long-term derelict sites tend to be larger in size. Overall the average size has decreased between 2003 and 2008.

- The total number of registered sites has increased in Greater Manchester between 2003 and 2008, while the average size has increased. This suggests that there has been a shift towards small sites. From the 356 sites vacant/derelict in 2003 since 1998, 235 are still vacant/derelict in 2008. The average size of this group has increased from 2.12 ha to 2.52 ha. This suggests that smaller sites have been reused while larger sites remain vacant/derelict.

- In Manchester there has been a strong increase in sites registered as vacant/derelict between 2003 and 2008 from 212 up to 477, while the average size of sites, and the total area, has decreased significantly. This suggests that there is relatively more vacancy of smaller sites, often in the context of existing use, while some bigger sites vacant/derelict in 2003 have been reused. From the 1998 stock of vacant/derelict sites that have been registered in 2004, of 52 sites, 33 sites still remained vacant/derelict in 2008, hence being long-term brownfield land. The average size of these sites is much larger than the average site in Manchester and comparable to the figure for Greater Manchester.

Further details on ownership and use patterns are provided in Appendix 3.

---

18 My thanks is owed to Dr Andreas Schulze Baing and Professor Paul Syms of the University of Manchester for providing this analysis.

19 It is dangerous, however, to make detailed comparisons because the number of participating local authorities varies throughout the reporting years. Missing data from rural authorities with low numbers of brownfield sites only marginally changes the overall figures, but this is different in larger urban areas. For example, in 2008, key urban areas such as Leeds, York and Walsall did not provide NLUD figures, while in 2004 there is no data for Bristol, Leeds and Gateshead.
Table 3.1 NLUD analysis: summary of headline figures

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Greater Manchester</th>
<th>Manchester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short term (2003-2008)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total area</td>
<td>Decrease from 27,200 ha to 25,000 ha</td>
<td>Decrease from 2052ha to 2017ha</td>
<td>Decrease from 314ha to 378ha</td>
</tr>
<tr>
<td>Number of sites</td>
<td>Increase from 9,395 to 11,594</td>
<td>Increase from 1,017 to 1,209</td>
<td>Increase from 212 to 477</td>
</tr>
<tr>
<td>Average size</td>
<td>Decrease from 2.90ha to 2.09ha</td>
<td>Decrease from 2.02ha to 1.67ha</td>
<td>Decrease from 1.49ha to 0.58ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medium/Long term (1998-2008)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total area</td>
<td>Decrease from 16,563 ha to 11,102ha</td>
<td>Decrease from 774ha to 593ha</td>
<td>Decrease from 110ha to 77ha</td>
</tr>
<tr>
<td>Number of sites</td>
<td>Decrease from 4,532 to 3,142</td>
<td>Decrease from 356 to 235</td>
<td>Decrease from 52 to 33</td>
</tr>
<tr>
<td>Average size</td>
<td>Decrease from 3.65ha to 3.53ha</td>
<td>Increase from 2.18ha to 2.52ha</td>
<td>Increase from 2.13ha to 2.34ha</td>
</tr>
</tbody>
</table>

3.2.4 Land and property markets and the impact of the recession

In a recent Annual Report, New East Manchester commented (NEM, 2009a:1):

"NEM are seeking to promote and deliver against a backdrop of some of the most difficult economic conditions the country has experienced for more than a generation. However, the flexible nature of the SRF enables the Company to respond to the dynamics of the market over the long term. These conditions are having a significant bearing on the performance of local businesses, the number of employment opportunities available to residents and are having a negative impact on the commercial and residential development of the area".

Although there is a view that the North West region as a whole is better placed than it was in the 1990s to respond to the economic and property downturn through a relatively lower inflation rate and unemployment today than 20 years ago (MIER, 2008a; 2008b; 2008c; Parkinson, 2009; Knight Frank, 2009), the impact of the recession has, nonetheless, already being felt within Manchester with a decline in housing starts and a decline in commercial development activity (Manchester City Council, 2009). In housing this has come from a relatively high baseline which saw Manchester building at rates some 50% higher than the national average. The decline is significant, given the forecast demand for housing in Manchester (based on RSS targets) of 6300 extra units from 2008-17 (Manchester City Council, 2008). In Manchester this projected increase is being fuelled by a forecast growth of 31% in households from 196,000 to 256,000 in the period 2006-2026 (Knight Frank, 200820).

---

20 Based on CLG figures.
However, more fragile employment and increasing energy prices and the continued impact of recession may themselves reduce new household formation.

Further evidence of the impact of the recession is also seen in the fall in both house prices and related sales activity and the decline in land values in the region (Figure 3.2 and Figure 3.3). This has also seen varying developer/investment responses in the north west region (Knight Frank, 2008):

- Mothballing of sites in their early stages by developers with banks absorbing the development;
- Developers assuming the mantle of landlords on completed schemes;
- Increasing interest from investment funds in new build.

Figure 3.2 Residential land values: England, London and North West (1994-2009) (Data: CLG)
There is a clear lack of credit and confidence in the banking sector which is increasingly risk averse, and this has already seen the collapse of some of the north’s most well-known developers, including City Lofts Group, Asquith properties and BS Group. A concern for the sector is whether there is sufficient resource (skilled labour) and capacity to engage when the upturn transpires (Knight Frank, 2008).

However, as Leadbeater (2009) argues, in the context of a recession, whilst Manchester is well-placed nationally to fulfil its ambitions, it can no longer rely on physical renewal, property development and a blossoming retail sector as its main emphasis. To rival other cites such as Milan, Barcelona and Osaka, it has to shift its emphasis to ‘people and culture (and) from inputs to outputs’. Whilst public-private partnerships have focused on city centre renewal this collaboration will need to deepen in order to take Manchester forward. A sign of the times is the fact that in Ancoats, of the 14 projects where commitments from developers were in place at the beginning of the 2008/09 financial year, 11 are subject to some form of delay and three sites have halted midway through construction (Sarah Point, Ice Plant and Bengal Mill), and new commercial development has followed suit (Ancoats, 2009 and New East Manchester, 2009b).
3.3 Osaka

3.3.1 History and growth (key facts)

With Japan still the second largest economy in the world the Kansai (Osaka-Kobe-Kyoto) region, in which Osaka is located, has a GDP comparable to Australia and Holland. Osaka’s role as the third largest city in terms of population (2.7mn) in Japan is founded on its seaboard port location to the west of Japan with its west side open to Osaka Bay and with mountainous terrain constraining its expansion to the east (Figure 3.4). Geographically the Kansai region is some 37,000 sq km with Osaka Metropolitan Area at its core (Edgington, 2000).

Figure 3.4 Osaka and the Kansai Region (source: Wikepedia)
Osaka's importance in Japan can be traced back to the fifth century and by the end of the seventh century Osaka (Kansai area) had already become the centre of political life in Japan. Indeed the foundations of modern day Osaka were laid in the late sixteenth century when Osaka was Japan's main business and political centre. Power shifted to Edo (now Tokyo) in 1603, where the emperor now resided, and after the Meiji Restoration (1868), the 'official' moving of the capital to Tokyo and far-reaching reforms to the economic system led to a decline in Osaka's prosperity (Edgington, 2000). Initially in this latter period Osaka was a thriving distribution centre nicknamed the 'nations kitchen' or 'Japan's rice bowl' and with and important network of canals and waterways also became known as the mizu no miyako (‘aquapolis’) (Kana, 2008). This period also saw a shift in emphasis away from trade and finance to manufacturing particularly textiles and other industries, so much so that during the 1930s Osaka became known as the ‘Manchester of the Orient’ or the ‘smoky city’, which through rapid urbanisation also saw a shift in emphasis away form riverside development (Edgington, 2000; Srinivas, 2006, Kana, 2008).

The modern municipality of Osaka was established in 1889 by government ordinance and subsequently expanded to reach its current geographical area of 222sq km. By the 1890s Osaka was turning out some 90% of Japan’s national spun cotton output (Edgington, 2000) and by 1925 it was the largest city in Japan in terms of population and area and the sixth largest in the world (Srinivas, 2006). As the City developed during this period an urban infrastructure also developed with new railways, port and harbour facilities and water/sewerage works, based on land readjustment policies (Edgington, 2000; Sorenson, 2002). Osaka was badly bombed during the Second World War but in the post-war period proactive policies brought the city back to levels of prosperity which exceeded those before the war.

Osaka experienced decline however during the 1970s as its industrial base failed to diversify; there was a lack of integrated planning policy in the Kansai region; and a failure to recognise the need to underpin service sector growth with an improved urban fabric (Edgington, 2000). This was also the result of the continued growth of Tokyo during this period but also a declining export competitiveness due to the fall in the power of the yen. There was therefore a growing realisation that Osaka and the Kansai region needed to move away from the inheritance of a heavy manufacturing base to one based around knowledge intensive industries and value-added sectors.

Today Osaka Prefecture has a population of 8.8m and a gross domestic product of US$322.5bn, making it equivalent to the size of Norway’s GDP, or about 8% of Japan’s total GDP (PwC, 2007; Savills, 2008). It has its own Securities Exchange and is home to a diverse base of industries in the electronics, pharmaceutical, machinery and robotics, chemical, biotechnology, ICT, food, and construction industries. Global blue chip companies HQs, such as Panasonic, Sharp, Sanyo and Suntory, are also based in Osaka (Savills, 2008).

3.3.2 Regeneration: Policy and Practice

Osaka’s focus on regeneration really began in 2000 with the establishment of the Office of the Urban Revitalization Committee (Sato, 2006). This reform of urban regeneration policy also coincided with a recovery in economic growth in Osaka after the lost decade of the 1990s. During this period Osaka’s unemployment rate rose to 7.7%, but from 2002-2007, Osaka’s economy began to grow at between 1.0 and 1.7% and unemployment fell to 5.7% in 2007 (Savills, 2008). However, more recently Osaka’s GDP, which is heavily dependent on export activity, decreased for
consecutive months from October 2008 as the more recent recession hit Japan (Savills, 2009).

In 2003 the City prepared the Osaka City Revitalization Program, which was an initial three year programme (since extended) designed to develop academic and business related growth, develop the cultural pull of the city and ensure attractive and vibrant communities were related. This also saw the establishment of the ‘Osaka City Urban Revitalization Task Force’, Japan’s first city-based initiative to address urban regeneration and revitalization issues within a common framework, which also collaborates with the central government’s ‘Urban Renaissance Program’. The role of the task force is to coordinate and promote the set of initiatives that taken together form the Osaka Revitalization Plan. In short the programme was designed to integrate economic, tourism and urban planning policies (Takauchi, 2004). The key drivers for this were that Tokyo had proved to be an attractive magnet for companies and research institutes formerly based in Osaka together with the fact that structural industrial change was causing city-wide economic stresses. This was also founded on the establishment of the ‘Priority Urban Redevelopment Areas’ which were designated for renewal by the Special Measures Law enacted in 2002. This established four main areas for renewal between 2002 and 2004 which comprised (Figure 3.5):

- Osaka Station, Nakanoshima and Midosuji Districts (485ha): part of this major regeneration programme is based around Osaka railway station, and the ambitious project aims to enhance existing transport infrastructure; develop knowledge-capital activities; attract visitors and create a vibrant new urban landscape within a public-private partnership arrangement. The West Section of Nakanoshima Island and Midosuji District is also programmed for renewal with a City of Water project based in this area and an international cultural zone planned for the city.
- Namba and Minatomachi Districts (36ha): This area includes one of the largest concentrations of cultural and commercial facilities in Western Japan.
- Abeno District (21ha): this programme is based around the gateway to Osaka in the south with plans for commercial and residential development and for improved transport.
- Sakishima Cosmosquare District (154ha): Government and private organizations are partnering to create a new urban area that will form a business hub for the Asian region, taking advantage of both the concentration of companies in the precision device and IT fields and the area’s abundant green spaces.
It is important to note that within these priority areas there are relaxed planning regulations (Box 3.2) and range of financial incentives. Osaka also offers other incentives and subsidies (Table 3.2).

**Box 3.2 Special Urban Revitalization Districts in Osaka**

In order to facilitate urban regeneration and promote rational, healthy and intensive land use, URDs are exempt from the normal restrictions relating to conventional land use, including floor-area ratio and height limitation. There is also generous financial support available in such areas for the development industry, provided the project is more than 1ha in area: this can include a no-interest loan to cover development and improvement of public facilities; debt guarantee; funding by the Urban Revitalization Fund Investment Corporation and financial support for corporate bonds. Other benefits include deprecation reductions on income tax and corporation tax; reductions on property tax for public buildings and on real estate acquisition tax (Osaka Office of Urban Revitalization and Promotion 2009a; 2009b).

In recent years Osaka has focused on a new desire to acquire a reputation as a ‘water metropolis’[^21] and ‘sporting mecca’ (CITE, 2006).

Table 3.2 Summary of Osaka Incentive Programmes (adapted from Osaka Office of Urban Revitalization and Promotion 2009b)

<table>
<thead>
<tr>
<th>Package</th>
<th>Overview</th>
<th>Qualifying Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidy for Urban Revitalization: New Business Establishments in Key Industries</td>
<td>This is an incentive program for companies, universities and others engaged in establishing a presence in Osaka City. There are four different subsidies: the basic subsidy and special subsidies for the establishment of large-scale businesses, universities, and head offices.</td>
<td>Capital investment for buildings and facilities (for use for the business only)</td>
</tr>
<tr>
<td>Subsidy for Land Acquisition in Sakishima Cosmosquare</td>
<td>Osaka City Government subsidizes a portion of the cost of land acquisition required to establish a new business presence by an enterprise that is developing either a business premises in an industry specially designated by the city, or a lifestyle convenience facility that supports research and development.</td>
<td>Land acquisition costs; in cases where funds are also procured from the national or local governments for land acquisition costs, the amount of this subsidy will be deducted from such assistance. Up to 30% of land acquisition costs (limited to 1 billion yen per business)</td>
</tr>
<tr>
<td>Osaka City Business Establishment Promotion Subsidy in Key Industries</td>
<td>Osaka City Government offers subsidies to cover a portion of building rental costs for companies in key industries establishing a new business presence in Osaka City, in order to reduce the initial investment required to establish such a presence.</td>
<td>This rent subsidy is offered to companies in key industries that will open new business establishments in Osaka City and that meet certain conditions; to cover &quot;the office rent for up to 3 months after the new establishments are opened&quot;.</td>
</tr>
</tbody>
</table>

3.3.3 Brownfield: nature and extent

Data constraints restrict the level of detail that can be sourced on the extent of brownfields in Japan and this is also an issue at a local level. However, using estimates based on previous research suggests that there are some 86,000 brownfield sites in Osaka, which represents some 9% of the total number of sites or 5% by area (Table 3.3). There have also been several high profile cases, including Nomura’s high profile residential development on a hazardous waste dump in Osaka (Dawson, 2001).
Table 3.3 Comparison of brownfield sites in Japan and Osaka (source of data: MoE (2007) and Yasutaka (2009))

<table>
<thead>
<tr>
<th>Type</th>
<th>Japan</th>
<th>Osaka</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sites</td>
<td>Area</td>
<td>Sites</td>
</tr>
<tr>
<td>Contaminated Sites (1)</td>
<td>331,000</td>
<td>112,000</td>
<td>37,000</td>
</tr>
<tr>
<td>‘Hardcore’ Sites (PBFs) (2)</td>
<td>80,000</td>
<td>28,000</td>
<td>5,300</td>
</tr>
</tbody>
</table>

2) MoE (2007); Yasutaka et al

(PBFs) potentially brownfields sites

This covers sites where the soil contamination countermeasure cost exceeds 30 percent of the land price. The number of Potentially Brownfield sites was calculated by multiplying the number of contaminated sites (CS) by the estimated probability of a CS becoming a Brownfield site (Yasutaka (2007)). This number includes not only the estimated current brownfield sites but also an estimate of ‘potentially brownfield sites’. A ‘Potentially Brownfield’ site means that although the site is not brownfield now, it will be categorised as brownfield when the CS is closed down. Moreover, it should be noted that the definition of “Brownfield site” in MoE’s research (2007) is “a previously used site that cannot be redeveloped due to the presence, or potential presence, of contamination”, which is quite different from the UK definition.

3.3.4 Land and property markets and the impact of the recession

The pattern of residential land use price movement in Osaka is similar to the pattern in Japan nationally (Figure 3.6 and Figure 3.7). This is characterised by a fairly flat period from 1994 with a slight improvement in performance in 2006 as the economy recovered and a then a further decline more recently in the wake of the global financial crisis. This pattern is also repeated in terms of new condominium build rates and average prices (Figure 3.8), despite enhanced mortgage tax breaks in 2009. It is also noticeable that Osaka experienced a more substantial rise in residential land prices than Tokyo up to 1991, but with a steeper fall subsequently (Figure 3.6).
Figure 3.6 Residential Land Prices: Japan, Tokyo and Osaka (Index: 1987-2009) (Data: MLIT)

Figure 3.7 Residential Land Prices: Tokyo and Osaka (Year on Year change 1987-2009) (data: MLIT)
3.3.5 Summary and conclusions

Both Manchester and Osaka are third cities in their own countries with significant brownfield issues. The cities are founded on a rich and historic legacy of industrialisation stretching back over the last two centuries, and both share a common history through their previous emphasis on textiles and manufacturing.

Osaka’s role as the ‘Manchester of the Orient’ has given way to a new focus as a knowledge-based city-region economy, but with manufacturing still an important industry base in the city. Manchester’s role in the north west region of the UK, and its key focus as an engine for economic growth in the wider Greater Manchester sub-region, have driven calls for its placement as a ‘city region’ within the UK, which it has recently secured.

Both cities also share a vision in terms of their ambitions to regenerate substantial parts of their urban land area through large-scale and comprehensive urban regeneration programmes, based around joint venture, or public-private, partnership models.

However, both Manchester and Osaka are cities in recession, with both property prices and regeneration activity facing severe constraints as the credit crunch hits national, regional and local economies, and as the effects of globalization re-enforce such impacts. In these circumstances the more marginal brownfield sites which require substantial clean up are increasingly under threat, as liquidity and confidence have fallen in the banking sector and consequently the property development and construction industries.
4 Main Interview Findings: Manchester

4.1 Introduction

The research was based on some 17 interviews (face to face and telephone) with key regeneration stakeholders in Manchester and Greater Manchester. For further details on the research methods see Appendix 3, and for further details on the case studies see Appendix 4. This section describes the main findings from the interviews, based around key themes which emerged, and which formed the focus for the structured interviews. These are:

- Attitudes towards brownfield regeneration and redevelopment;
- Contamination and other barriers to regeneration;
- Hardcore sites;
- The role of the public sector in regeneration;
- Land and property markets and recession; and
- Current and future policy and practice: what can be done?

4.2 Attitudes towards brownfield regeneration and redevelopment

The nature of Manchester’s historic industrial legacy and the emphasis on recycling brownfield land within Manchester, and the greater Manchester area, means that developers are well-used to redeveloping brownfield land. The public sector has also built up a large amount of experience and knowledge in dealing with such sites, some of which are contaminated. As one interviewee from the public sector put it, because of Manchester’s boundary constraints:

‘The majority of land, about 90%, is brownfield land.’

Those developers that were the most successful in bringing such sites back into use had developed a niche for themselves. As one developer suggested:

‘Developing brownfield doesn’t scare us at all, it’s a good proportion of the work that we do, do because we’re a mixed use developer, we like to develop large sites where we can, rather than small one-off developments.’

Another suggested:

‘We’re not frightened off in any way, shape or form. We are a commercial property development/ investment company and our backbone really is industrial.’

Brownfield development was often a case of finding the best value sites. As the same developer said:

‘We just see it as a matter of that’s where you can get the best value really in terms of larger sites... and if you’ve got the right consultants behind you and the right partners, they’re there to be tackled. We’ve yet to find a site, a development site in an urban area that just can’t be treated and developed on.’
The idea of finding a niche market and developing a skills base that would bring sites back into use was also important for residential developers. As an in-house remediation specialist suggested:

‘What we look to do is try to take on sites that possibly will give us a market advantage whereby some of our less informed competitors will be scared away from. But that's not to say we’re doing that on a wing and a prayer. We're going in on a very well informed basis’.

Another developer suggested that focusing narrowly on brownfields per se was not the real issue. It was more important to consider the much wider context of regenerating areas that were suffering long term deprivation, and in that sense brownfields were just part of a larger landscape of issues. For this company the focus is

‘…on area-based regeneration, taking places that are undesirable and making them desirable by a process of master planning, site assembly, reclamation, infrastructure provision, providing commuter services… with a view to offering many development opportunities to the wider the development industry. We manufacture development opportunities: this is what our business model is about’.

In this sense the developer suggested more explicitly that:

‘There’s a separate set of issues that need disaggregating from that which are about if you’ve got a historic legacy of a horrendous chemical site or coking works, and the original polluter’s gone west, what do you do about that? But that seems to me something that’s important to recognise as a completely different set of issues, compared to making sure the development takes place within, and is focused, within the existing urban fabric’.

Another developer suggested that their niche is regeneration and that the focus of regeneration should be distinguished from redevelopment:

‘I have never developed in a city centre of Manchester- because to our mind that is actually a natural process of redevelopment, buildings need renewal over periods of time, and in a city centre where you’ve got the economic drivers, redevelopment will happen. Our niche is regeneration where you actually have a structural failure of some part of the market place, which actually needs, therefore, a structural change and transformational change … You have actually got to make a real change in the structure of the place to start making it work again and the solution to that is never the same solution’.

4.3 Contamination and other barriers to regeneration

Clearly Manchester’s industrial legacy can pose problems in terms of contamination, but this is a risk developers are now prepared to engage with. Although contamination issues can affect the regeneration viability of some sites, particularly in a recessed property market, other issues are also important to consider. As one remediation expert suggested:
'It's just one of very many considerations: traffic and transport, you know, relative location, technical conditions; there's a whole raft of things you need to consider regarding the viability of all sites and contamination is one of those. So in some ways it's a barrier and in some ways it's not, it's just another consideration we have to think about.'

This was a point picked up by other interviewees. As a developer noted:

'By and large, in my experience the reasons why the sites in the existing urban fabric were not getting developed...{was} really not because they were horrendously contaminated, although clearly some of them were, but the issue was about a lack of demand hence low values, that made redeveloping those sites unviable and uneconomic for the private sector, unaided'.

Another suggested that:

'Contamination is only just one of the aspects of regeneration. It by no means determines the need for regeneration: it actually just helps shape the nature of the solutions'.

Moreover, within Manchester there was now a better understanding of these issues within the regulatory sector, particularly towards the centre of Manchester. As one remediation expert put it:

'When you actually get out of the Greater Manchester Area, towards the more suburban areas, that's where you have problems with the regulators... when you get closer to Central Manchester most of the regulators are reasonably well informed these days.'

Nonetheless, some interviewees felt that increasingly high standards of clean-up had raised issues. As an in-house remediation specialist suggested:

'Some of the naturally available or some of the thresholds set for naturally available organic compounds that do make some sites rather prohibitive'.

Moreover there was confusion over tax relief surrounding cleanup:

'I think there's an awful lot of confusion about that. I don't think the legislation and the tax relief is clear... I do think a lot of small developers are missing out on it and don't realise the level of relief they can claim'.

Despite this there were several other barriers to brownfield regeneration in Manchester and Greater Manchester. Key to this, particularly in East Manchester, were infrastructure issues where roads were not up to standard and where utilities were also an issue. Vacancy and dereliction tended to produce a spiral of decline which was difficult to reverse, particularly in a recession. As a public sector regeneration expert suggested:

'I mean it's human nature isn't it, you're very wary of being the person; is the area going to stay like this? Is everything going to be
vacant around me? It’s the sudden underlying problems why no-one’s been developed on this site. So it’s getting that first pioneering developer there.’

In Manchester the use of 250 year leaseholds is an accepted form of tenure for housing developers to obtain finance and purchasers to obtain mortgages. However it was suggested there are some house builders (and no doubt purchasers) who are reluctant (and may rule out) buying land or property on anything other than on a freehold or 999 year lease basis. Environmental standards themselves were not seen as leading to smaller houses, but such standards may increase the cost, and the challenge for the house builder is whether he can recoup the additional cost from his sales revenue. If anything the requirement for houses to be DFA 2 compliant (i.e. on Council-owned sites all houses have to all be fully DFA 2 compliant) means that gross property sizes are today relatively larger, which is seen as advantageous. However this additional space is often largely taken up by extra large downstairs WCs, bathrooms, halls and lobby areas and areas to allow construction of a lift. Because the DFA2 compliant house is larger therefore, its selling price has to increase, but for the ‘average buyer’ it is not necessarily providing them with the additional space they may be looking for (i.e. a large lounge or kitchen) to justify the additional cost of the house.

For developers other constraints in Manchester were important to consider:

‘It’s all development constraints, whether they be in terms of planning, good neighbours, dealing with historic uses to pipe line easements, as well as the noxious stuff that exists under the ground. Again, just making sure that the places that you are committing yourself to have the right sort of champion at the centre.’

4.4 Hardcore sites

For hardcore sites, which suffer from long term vacancy and dereliction, often with an associated contamination problem it was important for developers to manage risk effectively and consolidate land holdings in what were frequently fragmented parcels. As one developer put it:

‘It’s predominantly about risk really, you can’t part-decontaminate land in our experience, you have to go for the whole lot or you have to steer clear of it. It’s impossible to do in small parcels, partly because of things like migration of contamination and water courses and things like Japanese knot-weed. It’s no respecter of boundaries or places’.

Dealing with small hardcore sites often ran into viability issues therefore and so in that sense, size matters. As another developer suggested:

‘If you try and develop a half acre site in the middle of an area of dereliction, the value of that very quickly slumps to the level of the surrounding areas. On the other hand if you take twenty, fifty, a hundred acres then you’ve got the opportunity of creating your own market in that area’.

This also means that linking such areas to ‘growth points’ was also easier. The same developer continued:
'The process of creating market and demand is easier if you've got the ability to link under-performing areas to value generators in one way, shape or form. And therefore our schemes are typically about linking under performing areas to city centres, water fronts, transport interchanges and things- these are typical of our sort of projects'.

Finally such sites also needed a supportive public sector partner to ensure success:

'Because hundred acres sites don’t sit around in the inner city anymore, we’re talking about sites which are often fragmented.... we need a supportive planning environment'.

In some cases hardcore sites had suffered from unrealistic values and expectations, often based on high densities. As one public sector regeneration expert suggested:

'Sites have changed hands on completely unrealistic aspirations and value, and they end up with receivers and whatever, and it just drags things out. Just completely unrealistic about the costs of bringing things forward. This move to very high densities is probably harmful really, because everybody thinks that they can get huge development values on them. And of course, where some sites have been developed, a lot of them are half empty'.

Instead the interviewee felt that regeneration should be more 'occupier-led', with a more realistic approach to end use in order to reduce speculation.

Even in areas which were perceived as having successful masterplans, varying site levels, fragmentation of ownership, contamination and other issues became more important when there was a market recession, often therefore making such schemes more 'marginal' in terms of potential success. This was a particular issue in East Manchester where old industrial buildings, different ground conditions and groundwater issues could make site assembly and remediation more complex. As one developer commented:

'The more challenging hardcore sites are the ones that are going to be the first to suffer because in the world where public funding is going to be a thing of the past, large scale areas are going to be blocked from public funding: it’s going to disappear I guess, over the next twelve months. Then to get those schemes into preparedness for development I think it’s going to be much more of a challenge. I think there’s a real danger that they’ll be mothballed until the market returns'.

Nonetheless there were also opportunities for some developers. As one developer commented:

' I would be more interested in those sites!... Land owners will be much more likely, if they’ve got problems, to drastically reduce their aspirations for the site. Where as if someone’s got a nice cleaned up site somewhere in the centre of Trafford Park, for example, they'll know the underlying latent value of that site would be relatively high. But if somebody’s got a heavily contaminated site, on the edge of the M60 ring, when it’s becoming a problem for them and they’ve got the local authority asking them about the site, I think they’re more likely to just dump the site, literally, to a developer
who’s able to clean it up and as a result we’re able to get it at a better deal’.

Despite these issues there had been some successful examples of bringing hardcore sites back into use, which are discussed in more detail in Section 5.0.

4.5 The role of the public sector

It was clear from the interviews that the ‘Manchester model’ of regeneration, which is founded on a strong public-private partnership basis, was a vitally important part of the regeneration landscape in the city and beyond. As one developer commented:

‘On this particular site (Central Park) our partner is the local authority of Manchester City Council, but on many of our other projects that involve difficult land it’s often the North West Development Agency, or the Housing Community Agency, both of those organisations can use ERDF funding and we source support wherever we can get it’.

One developer suggested this was one of Manchester’s key benefits:

‘We look at Manchester as a place we can do business because you can communicate with the people that make those crucial decisions that influence development at high level. There are towns and cities around the country that we possibly wouldn’t go, because you don’t have that personal regeneration champion or driver’.

Another suggested that:

‘Manchester council understand what is needed in regeneration’.

Another developer commented:

‘Manchester City Council is a very effective partner for people like us in that they understand the private sector has to have the potential if not the certainty of making a profit. We’re in this for the long-term; our schemes are typically 10/15 year projects and we don’t want to find that when the going gets tough that we’ve lost a partner on these things and they’re very good at orchestrating the public sector programmes around to support and underpin major regeneration projects’.

The role of the NWRDA in bringing forward and assembling land and helping in the clean up of sites was acknowledged as also being an important contribution. However, the economic recession was changing the landscape. The same developer continued:

‘Early doors it was quite easy to get public sector partners to say ‘look, we understand our role, it’s to de-risk project, it’s to acquire land, perhaps spend some public money on decontamination and remediation,’ ‘there’s a lot of skills around in the public sector for doing that actually. As we’ve moved to the top of the market, they’ve been saying, ‘well it’s about time you developers stood on your own two feet,’ certainly in certain locations’.
This was also reflected in a perceived change in emphasis from the RDAs towards broader training, economic development and up-skilling and relatively less emphasis on physical regeneration.

The recession was changing the emphasis of the relative roles of the public and private sectors with the public sector also having to become more flexible. As a public sector representative suggested:

‘In some cases it might be a case of changing payment schedules, in other cases you might have to provide more information, in some cases it takes, in terms of planning and so on what you wouldn’t have had to do before, you need to be more flexible, more phasing, because the banks don’t want to have any risk on the project, so they’re asking to lend the money on ‘no risk-make the money-pay it back’.

There was a view from the private sector that the public sector needed to play an even bigger role. As one developer suggested:

‘What’s happening now, of course, is that the private sector can’t deliver at the moment and therefore the role of the public sector has become, by necessity, more active. The role of the private sector though has to stay there, because what you can’t do is say, ‘Oh! The world is dreadful, it all has got to stop.’ The point of regeneration is that you’ve actually got to work with your market place’.

This view was echoed by another developer:

‘Manchester understands that we can do so much. We can deliver the commercial, but we are affected by market forces. If you need to drive regeneration forward now, then the public sector does have to take a more active involvement… the public purse is going to become seriously strained, but the public sector being able to either prepare sites at its cost or get fund development at its cost are all things that contribute. But the ones that really work are where the public sector is really quite innovative about its involvement’.

4.6 Land and property markets and recession

All respondents interviewed suggested that the recession had hit property markets hard. First and foremost the crisis in liquidity and confidence created by bank lending restrictions were creating severe problems. As one developer suggested:

‘The banks are a critical part of the regeneration process … until they decide that they’re prepared to consider lending again on development in it’s widest terms, and on regeneration schemes, then there’s not much progress that can be made on any development or regeneration anywhere in the UK at the moment, unless huge amounts of public sector funding are there to simply make up the short fall’.

Another developer suggested:
‘Debt is impossible to get hold of now. That will change though, won’t it? Banks exist to borrow and lend, but right now they’re not doing either. So it’s a sort of mordent state at the moment, it’s … ‘becalmed’ is the way we described it here. Becalmed’.

Moreover if banks did lend they lent at high rates. As one developer suggested:

‘At the moment, the banks have been so badly burnt that they are not lending. If they are lending, they are lending at very difficult rates… No amount of the gap funding can address that if it’s unviable. But they are lending at such low levels, at such high rates. The loan to value level is perhaps 60% and the interest rates are astronomical’.

In contaminated sites and hardcore sites lending was tighter still. Only ‘cash-rich’ developers might be able to purchase such sites. As one developer suggested:

‘The last thing I would do would be to walk into one of our regular debt providers and say, ‘I need to buy 28 acres of heavily contaminated land, what do you think?’

The speculative boom of the late 90s and early noughties had not helped in this respect. The same developer continued:

‘Buoyant valuations that haven’t taken too much consideration of decontamination costs, gloss over the issues a bit, taken green-field comparators, deducted a bit because it’s brownfield, and somebody’s gone along with it, so somebody’s been prepared to buy and some bank’s been prepared to fund, and banks…I don’t believe too many of them are interested in funding brownfield site acquisition normally, at the moment’.

This was a view also shared by the majority of public sector interviewees. As one public sector regeneration expert suggested:

‘Brownfield land values have been hit earlier, more in housing, actually, than in employment. I don’t think there’s been such a change in employment, because they weren’t probably fantastically high in the first place, but the housing values and the land values have been hit quite dramatically. Because I think there was quite a lot of speculation and people were expecting…they were being over optimistic on values, and the densities you could get from the housing, without any real understanding about who’s going to live in these properties…and underestimated the costs of actually developing the sites’.

There was a general feeling that within Manchester the large number of apartments and speculative activity had created an imbalance in the housing market. This had also been exacerbated by substantial buy-to-let or buy-to-hold purchasers. Although future housing projections for the city centre still favour apartment-based living, based on employment growth, there was a feeling that family housing was still a vital part of the mix, particularly for attracting families into the edge of city centre North and East Manchester areas. The demand for social housing had also increased during the recession. As one public sector regeneration specialist commented:
‘You have to think we concentrating too much on what do we think are people’s needs and it’s more about going and asking them what they want to live in and for the last seven or eight years we’ve been building a product actually a lot of people don’t want to live in, you know, because we’re bought out by investors… But even in the city centre I do think there’s bespoke demand, the problem we’ve got is poor quality units and the developers can’t get rid of them’.

In this respect density was an important issue: in Manchester, vacancy and dereliction plus council estate clearance had led to low densities but the council was focusing on increasing density with what it considered to be balanced mix of housing. The recession, however, was making it difficult to get the balance right as the more viable sites remained in the south of Manchester. As one public sector regeneration specialist commented:

‘The housing market in Greater Manchester, largely functions around the conurbation as a whole, so in more difficult times such as we’re having now, the additional costs of development in those difficult inner city sites, [will make it more difficult] to market than more suburban ones. Particularly, I think, with the explosion of apartment buildings that have happened in recent years and clearly there is a glut of those’.

Developers were less critical of oversupply and one commented that the City Council should:

‘Arguably maybe get a teeny weenie bit more involved in influencing the market in these times than just sitting back and saying, ‘well, if you want to build it, build it. Or if you’re first to the post then we’ll support it.’ Be a teeny bit more savvy about what you support I suppose, as opposed to just supporting the first person that arrives on the scene’.

Other recent legislation such as the code for sustainable homes and the Merton rule had for some developers created further burdens. As one in house remediation expert commented:

‘Well, the code itself, whilst non-mandatory, aligned with the Merton Ruling, has allowed a lot of local authorities to set their own sustainability agenda without any real joined-up thinking. So that has clouded issues’.

The recession had brought about a change in attitude from landowners perhaps facing a distressed sale. One local authority interviewee suggested:

‘They ring me up now asking if I want to buy land, whereas 18 months ago that was not the case’.

The recession was making it riskier to adopt relatively more costly remediation techniques. As one in-house remediation specialist commented:

‘What normally happens is that you don’t exchange monies, you align the date you exchange monies with the date you get your planning permission, so you don’t want to do any work before then because there’s still an uncertainty that something might go wrong and you don’t want to spend any money before then. After then you
need to spend money in order to see your returns in terms of cash flow, in terms of giving money on the earliest possible date because you've got borrowed a chunk of money. And so that kind of pushes remediation into a more standard approach, i.e. to get this job out of the way'.

In broader terms the skillsbase in regeneration had also been affected by the recession as regeneration experts had been laid off:

‘There's a skills gap, definitely. ... I mean, it's been massive. I'm sure it will go back the other way, smart sector organisations have maybe managed to come back from the brink and have saved the ship, would be and should be, if they want to make the most of any upturn, be seeking out those skills which won't be around, because in another two years they won't be able to pay them or another person will have got the people.’

Despite these issues there were still pockets of activity which were often based around public sector-based projects (for example the new Police HQ at central park). Some developers were also taking an optimistic view of the future regarding oversupply. As one suggested:

‘It's suffering. ... So there's been huge over supply of residential as there has been in Leeds and Liverpool ... I think we're all reasonably confident that when liquidity and confidence returns to the residential market, certainly the better developed schemes around the city will be soaked up’.

Others were less optimistic, with one fearing that hidden bank loans could create more distress:

‘A number of the banks are in denial about their property loan books, interest rates being as low as they are, with developers able to service the debt. I still think there’s banks sat on some horrific property loan books that they're just keeping alive, they're in intensive care but they're just keeping them alive at the minute. I think that's got to regularise itself at some point and I think if that's done through having to foreclose and revalue and recapitalise, then I think that will knock the confidence of the guy in the street.’

Another suggested:

‘I've got a funny feeling that it might be a more of a ‘W’ recovery than a ‘U’ or a drunken ‘J’ or whatever! That's the expression people are using! So I think that will knock people's confidences a bit through the course of next year’.

But others saw potential benefits and advantages for them. As one developer commented:

‘For our own purposes we're forecasting a 2011 third quarter recovery in the housing market at a stage when the market will be ready to exploit and take up schemes such as XXXXX and in the interim there are things that we can do. Our board’s view is that the schemes we're involved in we should be in a position to hit the ground running in general terms of planning, getting our site
assembly completed, getting all of the design work so that we're ready to roll'.

Indeed the same developer saw potential opportunities arising from the recession:

‘Site assembly is a lot easier and cheaper now than it was 18 months ago. People are now phoning us rather than us phoning them, you know?’

In the same vein another commented:

‘If anything the current recession has just slowed down our ambition, it hasn’t changed the ambition fundamentally, it’s just slowed down the delivery of it’.

Several developers also referred to regeneration as being a ‘long term’ process and that market cycles were inevitable, therefore agility and flexibility were vital in the current climate. As one suggested:

‘Manchester understands that what you do is what you can do at the time. But you never lose site of the vision, so having a vision is good. Having a fixed view about how you must get to that vision is what hampers development in a recession or regeneration in a recession’.

4.7 Current and future policy and practice: what can be done?

It was universally agreed that there were no ‘quick fixes’ for moving out of the recession. Increasing liquidity and confidence were the key to this, and currently hardcore brownfield sites were continuing to suffer continued vacancy and dereliction. No amount of gap funding could solve this critical issue. Typical of the views expressed was this from a developer:

‘I suspect the next decade will be a lot harder because there won’t be the cash from the banks, the banks will lend again, but not at the rate they previously lent, and we won’t get any cash from the government agencies because we know the government, whatever their persuasion is, they’re going to have to be cutting back. And I don’t know if I can see this sector surviving that cut particularly successfully. So I think it could be quite a difficult decade’.

There were several references to potential barriers to development which in the view of some public sector interviewees made it harder for developers to carry out development during a recession. These included exacting design and eco-standards and the potential impact of the Community Infrastructure Levy. Some developers felt that planning restrictions often led to inflexible decisions. As one surveyor commented:

‘...and the council had said, ‘we’ve got to protect our employment land,’ but really, if you’ve got a developer that wants to do a high-quality development, and half your employment land is vacant, once you’ve got the decommissioning authority and stuff going on, it’s not the right location for that. They do have strategic sites which suit that. Sometimes you can’t be too protective over policy’.
There was a feeling from some quarters that amore holistic approach to brownfield regeneration was required. As one specialist in house remediation expert commented:

‘I think we need to start focusing much more strongly on the quality of land rather than having quite a crude instrument of brownfield sites. And I think we need to look at the sustainability of greenfield and brownfield sites in their current use, and their proposed uses. Because it seems to me at the moment, that too strong a market mechanism and too strong a ‘brownfield first’ planning system results in lots of houses on brownfield sites and urban areas, but that isn’t necessarily what is the most sustainable outcome in terms of things like recreation for people, bio-diversity, and many other factors’. 

Other developers suggested that the empty rates on commercial buildings was a disincentive to development:

‘Empty rates was a very significant factor actually. If we hadn’t got the tenants into that building we’d have been paying 1.3 million in empty rates. Well, on top of everything else we’ve spent…’

Another commented:

‘I think it was a knee jerk tax that was aimed at an industry that people didn’t have much sympathy with. I think the amount of damage it’s done to developers’ confidence, developers’ desires to speculate, and peoples’ desires to put good buildings back into use when the market’s right, I think it’s worked completely against that and as I say, it was probably an easy tax, I don’t think anybody’s cried a tear in the street when they heard the property market was going to take a knocking at the end of the boom’.

Although hardcore sites would continue to be seen as risky there was a feeling that the public sector could help facilitate the bringing forward of sites for development. Environmental officers were seen as helping ‘de-risk’ sites. As one developer commented:

‘I think the more we can get good environmental officers to take “the risk” out of the contaminated sites when it comes to valuation… going to steer away from a heavily contaminated site, so getting decent valuations for them to understand via good liaison with environmental consultants, what the site entails, what the remediation is going to be, maybe even getting valuations from surveyors or bank representatives to meet with local authorities, until we get that, I think they’ll just see the word contamination on the valuation report and steer away from it’.

In this sense knowledge was crucial:

---

22 In the Pre-Budget report, Empty Rate Relief was extended for one year and there has been an increase in the amount at which empty properties are subject to rates from the current rateable value of £15,000 to a rateable value of £18,000 and above for the financial year 2010-11. However, the relief will not apply to higher value properties which exceed this threshold thus placing prime property at risk (Chapman, 2010)
‘I think its more knowledge of the actual contamination. It’s more understanding it and the more people understand it, the less contamination is a word that blights sites’.

Interviewees felt that the Homes and Communities Agency ‘Kickstart’ programme had provided much needed impetus for some stalled housing programmes in the North West. However there was a general feeling that would only have a limited impact.

Moreover, on other sites, where contamination was an issue, the current tax system of incentives was confusing, and one remediation expert suggested that the recent ‘Corby case ruling’ could have a further detrimental impact on some schemes. Although Tax Increment Financing and Local Asset Backed Vehicles (and other tax incentives) were also mentioned as a possible measure to rekindle regeneration it was felt that the recession would continue to impact through reduced liquidity and confidence.

As a result it was important to think long term. As one developer commented:

‘I just think that the banking crises that we’re suffering at the minute, in terms of liquidity: it’s just going to be three years off before we start to get any decent sort of commercial lending. So I think that that will sort of slow things down. I think that public sector expenditure will slow things down, come the middle part of next year…I think we’ll have, not necessarily a dip, but a very slow increase in recovery’.

Another suggested:

‘I think we’ve discussed that on a number of projects with ourselves and our partners, really, that in 25 year’s time, some of the areas that we’re working in now, they’re not going to be judged on how well the project helped with the recession in 2008/9, it will be more how the place works, whether it’s still working in 25/20 year’s time, so it’s important we don’t lose sight of the main aspiration, here, which is to make these places work’.

Another commented:

‘Regeneration is where you’re trying to change the social landscape of a place because it’s failed. It didn’t happen that way overnight…It failed over a long period of time. And it isn’t going to be sorted overnight. And the recent approach, and I have to say I think the public sector are guilty of it, developers are equally guilty of it, is to have this grand vision that has to be delivered in one hit’.

So despite uncertainty it was important to have a long term vision and without ‘pain’ developers recognised there would be no ‘gain’. As one developer suggested:

‘We can’t expect the government to bail us out without any pain. We’ve got ourselves into it, we’ve got to get ourselves out of it and that’s going to involve a lot of pain. I don’t think there’s a sort of, magic pill that we can all take and it will all be better, it won’t. It’s going to be painful the next few years but it has to be painful because otherwise we’re not going to see a recovery’.
4.8 Summary

Attitudes towards brownfield regeneration and redevelopment

The majority of development land in Manchester is brownfield land and developers are used to developing such sites. Niche players have emerged but it is important to note that brownfield is just a part of the wider regeneration landscape in Manchester, which is focusing on place-making and projects which seek to increase demand in areas of low demand.

Contamination and other barriers to regeneration

Contamination, although important, is not the only issue when it comes to regenerating sites in Manchester. Low demand and a downward spiral in social and economic conditions in areas are difficult to reverse particularly in a recession. However, poor knowledge of tax relief on contaminated land was acting as a barrier and there were other issues of poor and under-resourced infrastructure acting as a further barrier. As regards the public sector, the convention of offering 250 year leaseholds might be less appealing than freehold or 999 year leasehold for new housing and Design for Access (DFA) 2 provisions may make some homes relatively more costly for some purchasers.

Hardcore sites

Viability was being hit in the recession and so hardcore sites in particular were suffering. Linking and merging such sites could lead to more advantageous outcomes and the public sector had a role to play here. The boom in prices had led to unrealistic expectations and some sites had changed hands at inflated prices which were now caught in the overhang of the recession. Even in areas which were perceived as having successful masterplans, varying site levels, fragmentation of ownership, contamination and other issues became more important when there was a market recession, often therefore making such schemes more ‘marginal’ in terms of potential success. This was a particular issue in East Manchester where old industrial buildings, different ground conditions and groundwater issues could make site assembly and remediation more complex. Some developers saw the recession as offering opportunities to acquire sites at reduced prices.

The role of the public sector in regeneration

The ‘Manchester model’ of regeneration, which is founded on a strong public-private partnership basis, was a vitally important part of the regeneration landscape in the city and beyond, and is seen by developers as one of the key advantages of doing business in Manchester. The NWDA was also seen as playing an important role. Developers suggested that the publics sector needed to become more flexible and take a greater share of risk in the recession, however.

Land and property markets and recession

The crisis in liquidity and confidence was hitting property markets hard in Manchester and making more marginal sites difficult, if not impossible, to bring back into use. Bank lending on contaminated sites could not be expected. Oversupply issues, driven by speculation during the boom, had fuelled the current crisis. The recession was also affecting remediation techniques carried out, with more standard techniques
or less costly techniques holding sway. It was felt that he worst of the recession was still to be felt and that the existing skills base of regeneration had been depleted in the recession as staff were laid off. Some interviewees pointed out that regeneration was a long term process and that market cycles were inevitable. Riding out the storm would be difficult but there were also some advantages, with cheaper site assembly now possible.

**Current and future policy and practice: what can be done?**

It was universally agreed that there were no ‘quick fixes’ for moving out of the recession. Increasing liquidity and confidence were the key to this, and currently hardcore brownfield sites were continuing to suffer continued vacancy and dereliction. No amount of gap funding could solve this critical issue. Increasing design and eco-standards were felt by some to be a potential barrier and the impact of the Community Infrastructure Levy (CIL) was seen as a further obstacle. Other barriers to regeneration could be removed relatively easily (including empty rates). Although Tax Increment Financing and Local Asset Backed Vehicles (and other tax incentives) were also mentioned as a possible measure to rekindle regeneration it was felt that the recession would continue to impact through reduced liquidity and confidence and until confidence returned, and the banks starting lending, that recovery would be slow.
5 Manchester Case Studies

5.1 Introduction

The five case studies which were identified in this research were sourced from NLUD and the 17 interviews conducted with key stakeholders in Manchester and Greater Manchester. The location of the case studies is shown in Figure 5.1.

Figure 5.1 Location of Manchester Case Studies

Four of the case study sites represent successful examples of hardcore regeneration. Of these, one is providing the focus for more regeneration (Sportcity), two are continuing towards completion (Central Park and First Street) and one is not yet started (Holt Town). Finally, the continued dereliction and vacancy of the Jacksons Brickworks site provides salient lessons for bringing such sites back into use.

In both the Manchester and Osaka case studies we use the concept of ‘critical success factors’ to summarise key elements which can lead to successful regeneration. This term was used initially in data analysis and business analysis (Daniel, 1961) and is defined by Boynton and Zmud (1984: 17) as:

‘Those few things which must go well to ensure success for a manager or organisation, and therefore they represent those managerial or enterprise areas that must be given special and continual attention to bring about high performance.’
5.2 Case Studies

5.2.1 Sportcity

Sportcity is currently the largest cluster of international sports facilities in the UK, and includes the City of Manchester Stadium, the Velodrome and the English Institute of Sport. The strategy for the development of Sportcity has developed through several phases: core facilities; major food store (Asda Walmart, which created 588 jobs); associated community facilities and canal-side housing. Further investment is planned with a national indoor BMX centre and freestyle BMX arena with further leisure and tourism and Sportcity will play a major role in the forthcoming UK-based Olympics in 2012 (Newby, 2003; NEM, 2009).

Figure 5.2 Sportcity (courtesy New East Manchester)

One of the main problems facing East Manchester when NEM was created was the poor level of recreational, leisure and retail and health facilities in the area. The site was originally developed for the Commonwealth Games in 2002. The Games were an important catalyst for East Manchester and the wider area which levered some £600m of public/private investment in corporate and capital projects (ULI, 2009). The 65ha site was once based around heavy industry, a power station, coal mine, gasometers and railway sidings, but was cleaned up after being heavily contaminated with cyanide. Sportcity is generally agreed to be a successful example of sports-based regeneration (Newby, 2003) and is now a new regional magnet and district centre with additional housing and retail. The Interim Evaluation report of New East Manchester suggested that (EIUA, 2006) the development had:

- physically transformed one of the most polluted sites in Europe into a showcase sports facility;
- successfully relocated all 56 of the businesses displaced by the redevelopment, 50 of whom are still trading;
- successfully staged major events, notably the Commonwealth Games in 2002 and a growing number of different sports, leisure and conference events since then;
ensured that there were no ‘white elephants’ after the Games by finding users for different facilities and fully exploiting the legacy by continuing to attract major events to Sportcity;

actively promoted community use of the facilities and encouraged volunteering, which increased local awareness and ownership of Sportcity developments and helped to achieve wider goals such as improved health and reduced alienation amongst some groups;

fostered a spirit of collaboration between different facilities in exchange of expertise, equipment sharing and local contracting;

given a community badly hit in the past by economic restructuring and lack of public and private investment new grounds for hope;

minimised some of the adverse impacts of Sportcity events through visitor management and traffic reduction measures;

linked the development of Sportcity to wider regeneration plans and the development of community sports and leisure provision;

Despite its failure as the focus for the bid for a regional casino the site also continues to provide a potential anchor for other regeneration programmes in the area (for example, Holt Town and Central Park). Moreover the Sportcity complex has provided the basis for the recent Sportcity Living development (Countryside Properties), which comprises 750 new houses and apartments.

(Further information: Newby, 2003; EIUA, 2006)
5.2.2 Central Business Park

Central Business Park covers some 182ha with additional capacity to accommodate some 500,000 sq m of commercial floorspace, with outline planning consent already available for 130,000 sq m of high offices. The site has excellent links to the city centre and the region's transport networks, including its own Metrolink station. It is branded as the UK's first truly urban business park. Since development started, Ask:Goodman has let 27,500 sq m of Grade A accommodation – 17,500 sq m occupied by Fujitsu Services, with a further 10,000 sq m building forming One Central Park, a world class research, development and training centre (or ‘incubation centre’) designed to stimulate job creation and encourage investment in the region.

Figure 5.3 One Central Park (courtesy New East Manchester)

The latest 4370 sq m phase, Madison Place, is available in five new office buildings, ranging in size from 530 sq m up to 1352 sq m. The Central Manchester University Hospitals NHS Trust has signed up to take the 720 sq m Unit C on a ten year lease.

The initial aspirations for Central Park were the integration of land parcels to provide a high quality and an effective management and maintenance programme and the formation of a new central entrance and transport hub to improve access and connections within the wider area. As a recent evaluation suggest the project has made substantial progress (EIUA, 2006) with a major role being played by New East Manchester (NEM) in driving the project forwards and working with the NWRDA to use the latter’s CPO powers. Moreover, NEM’s role was important in:

- conducting or facilitating critical negotiations, especially with the major tenant Fujitsu;
- minimising project costs;
- minimising private sector risk exposure by preparing a risk management strategy, promoting innovative design and construction solutions and advising development partners on how to mitigate VAT.

In what is one of the UK's largest property deals of 2009, the Police Authority has also agreed to locate Greater Manchester Police Force Headquarters at Central
Park. The new 24,000 sq m Force HQ building is scheduled to be completed in March 2011, which coincides with the proposed opening of the Metrolink line to the city centre.

The site contains also formerly contaminated land and the first part of the project in 2000 required cleaning up 36ha with a remediation cost of £5m. All buildings on the site achieve an ‘excellent’ or ‘very good’ BREEAM rating.

(Further information: EIUA, 2006; New East Manchester, 2009 and www.downtownmanchester.com/
5.2.3 First Street

First Street within the Southern Gateway of Manchester is the key highway conduit from the Airport and the national and regional motorway network from the south and to London. The area, about 8ha in total, has excellent road and rail accessibility but is characterised by significant amounts of vacancy and dereliction, and has been used for surface car-parking. Historically it has failed to connect with the rest of the city centre, Hulme or City South. Manchester City Council has therefore formed a partnership with Ask Developments (who bought all land and buildings previously owned by Henderson Global Investors) to establish a detailed masterplan for the area which updated the original Development Framework.

Figure 5.4 First Street (courtesy of Ask Developments)

The first part of the regeneration of First Street is now nearly complete: remediation works on part of the site are completed (the former Gaythorne Gasworks which had produced severe hydrocarbon contaminants including coal tar) and number 1 First Street has been completed (a Grade A office specification and BREEAM excellent building). Additionally Downing Developments and Unite have completed student residential development to the south of the site. The Council will also take a rent free lease of 1 First Street as their existing premises are due to be refurbished.

The future vision of First Street is a commercially-led, mixed use development over a lifespan of 10-15 years which is heavily founded on the Knowledge Capital agenda which seeks to create high value employment growth in the city. A significant investment of £3m will be made by the City Council in public realm works including a substantial centrepiece to the development.

Although the precise mix of uses changes over time as property market and economic conditions also change, the anticipated mix is shown in Table 5.1.
Table 5.1 Anticipated mix of land uses: First Street

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (sq m)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Gross Development</td>
<td>313,500</td>
<td></td>
</tr>
<tr>
<td>Commercial Office</td>
<td>128,000</td>
<td>41%</td>
</tr>
<tr>
<td>Residential/Student/Key Worker</td>
<td>106,000</td>
<td>34%</td>
</tr>
<tr>
<td>Retail, Leisure (A1/A3/Hotel)</td>
<td>52,000</td>
<td>17%</td>
</tr>
<tr>
<td>Car Parking/other</td>
<td>15,600</td>
<td>8%</td>
</tr>
</tbody>
</table>

The cleanup of the site was carried out by Celtic Remediation in 2007 at a cost of £5.4m. An estimated 36,000 tonnes of soil was treated onsite by cement-based stabilisation and reused to backfill remediation excavations. The site was complex because of the presence of an underground aquifer and also Japanese Knotweed on site. Some 99% of the site excavated material has been recycled on site.

(Further information: www.askdevelopments.com)
Box 5.1 Cleaning up First Street
Contaminated soils have been excavated from depths of up to 11m below original ground levels in the footprint of Plots 2 and 3 and up to 9 m below ground level within the former gasworks structures on site. The main gasworks structures treated are the below ground bases of the former gasholders – the largest on site was 46 m in diameter. The soils have typically be contaminated with coal tar – a brown viscous hydrocarbon with a creosote-like odour – which was a by-product of producing town gas from coal in the late 1800s and early 1900s.

Figure 5.5 Remediation at First Street (courtesy Celtic Design and Construct Remediation)

The environmental impact of the site remediation has been mitigated by treating contaminated soils on site for re-use within the works as engineered fill:

- Approximately 70,000 tonnes of soil processed on site over a 44 week programme.
- Estimated 36,000 tonnes of soil treated on site by cement-based stabilisation and re-used to backfill remedial excavations.
- Approximately 13,000 tonnes of brick and concrete segregated for re-use as capping material.

Because treated soils can be re-used on site:

- Over 36,000t of soil has been diverted from landfill (and therefore no exposure to Landfill Tax)
- No aggregate has been imported to re-instate excavations - requirement for the import of c. 49,000t negated
- Wagon movements minimised by reducing disposal to landfill and import of aggregate – over 50,000 road miles saved on disposal to landfill alone.

The impact of the reclamation works on local residents has been minimised by controlling odour, noise and dust generation as well as minimising traffic to and from site – site rated 'Very Good' site by the Considerate Contractors Scheme.

Information: Celtic Design and Construct Remediation (2009)
5.2.4 Holt Town

This project is designed to create a new urban quarter with plans for 4,300 homes (466,000 sq m), 2000 sq m of retail space, 11,100 sq m of commercial space, a primary school, open access space and a Metrolink tram extension. Outline planning consent was given to Cibitas Investments Ltd in 2008. Cibitas Investments Ltd is a specialist regeneration company established in November 2003 whose remit is to regenerate brown field sites in partnership with the local authority. The 34ha site which is situated between the city centre and the Sportcity complex had remained undeveloped despite the efforts of New East Manchester to regenerate the surrounding areas.

Figure 5.6 Holt Town (courtesy Cibitas)

The area is mainly industrial with a number of historic mills, works and warehouse buildings along the Ashton Canal and more recent buildings nearby. The site is also adjacent to the Miles Platting Social Housing PFI project to the north and Sportcity to the east. It was formerly known as the ‘Bradford Road Triangle’ site, and saw two previous failures in attempts to regenerate the area in 2007 (Manchester’s failed Supercasino bid and the scrapping of the Eccleshall Street Clayton residential development, due to concerns over the proximity of chemical plants).

Overall the area is characterised by inaccessibility and neglect (Manchester City Council, 2007), with many of the buildings in the area in poor condition, and with low levels of private sector investment in the area.

The concept behind Holt Town is urban suburb or ‘uburb’ with some 70% of homes being built for families through a mix of tenures. The development framework for the site was drawn up by a number of partners including EDAW, Arup, Davis Langdon and GVA Grimley. The scheme is a 15 year plan and will be delivered in partnership with New East Manchester and Manchester City Council.

The masterplan comprises a series of development parcels ranging in size from 0.2 to 2.2 hectares structured by a hierarchy of streets and green spaces. These green spaces incorporate the core elements of the site including the canal and river, and
connect with existing and planned green links through surrounding areas. The green spaces provide variety, from strategic public open space, to semi-public courtyards and gardens for residents, to private gardens, balconies and terraces for homes. The green space hierarchy provides for neighbourhood recreation facilities, as well as local play and seating areas.

Figure 5.7 Holt Town (courtesy Cibitas)

Made ground from human activities covers the majority of the site and because of the past history and current uses of the site, this has the potential to be contaminated and to produce ground gas, primarily carbon dioxide and methane, which will need to be mitigated for as part of the outline planning application. The site has been the subject of coal mining in the past and the former Gleden Colliery was located on the gas distribution area.

In the last 12 months it is clear that the economic recession has had an impact on the first phase of development.

(Further information: EDAW-AECOM, 2006; Manchester City Council, 2007; and www.cibitas.co.uk).
5.2.5 Jacksons Brickworks Site, Briscoe Lane

Figure 5.8 Jackson Brickworks Site, Briscoe Lane

This is a 16.97ha site of a former brickworks. The site has known ground condition issues. NLUD suggests that the capacity of the site is 933 units at a density of 55 units per ha.

Anecdotally the site has been through a number of changes of ownership. Currently the site is in receivership. The latest Planning Committee minutes, although positive, suggest the site continues to face uncertainty (Manchester City Council, 2009):

“*The development framework to regenerate the District Centre will be advanced to include the former private market and Smallwood Street area, as well as the northern end of the former Jacksons Brickworks site. Work will be progressed to enhance the Oldham Road/ Dean Lane Junction adjacent to the Newton Heath & Moston Metrolink Station. A robust public realm strategy will be implemented with a focus on the Old Church Street and the Village Centre. The former Jacksons Brickworks will be the focus of comprehensive development proposals looking to provide positive development opportunities across the entirety of the site*."

A developer commented:

‘It’s contaminated with all sorts; it was an unlicensed tip and it’s filled with ash from coal fires, and it’s got all sorts in it, and various people have gone bust by buying that site and getting excited by it’s scale because it’s huge, failing to understand the intrinsic problems in the ground and they’ve eventually gone bust….That site’s been undeveloped for over 15 years through booms and goodness knows what, so I wouldn’t be too optimistic about anything happening to it in the market that we’re in now. The bank has to do what it has to do, but it is sitting on a huge bad debt there, so they’ll probably be sitting on it for the next couple of years because it doesn’t want to write off the debt’.
5.3 **Critical success factors**

From the interviews and background information gathered for this research it was clear that there were six main critical success factors that were key to enabling former hardcore sites to be brought back into use. These comprised:

- **Strong market:** for the regeneration to work there had to be a strong potential market for the product. Although the property market is subject to booms and slumps, ensuring long term demand for housing and other uses is essential. Location of a site becomes even more important when the market is a downturn and it is clear that more marginal sites face an uncertain future in the current market.

- **Long term vision:** despite the importance of market demand it was important not to lose the long term vision of regeneration. Successful schemes are the ones which continue to act as anchors for further development and regeneration in an area, despite market cycles.

- **Strong brand and individuality of product:** allied to the first two critical success factors it is important to ensure the regeneration product is individual enough to tap into effective demand and that a strong brand underpins this.

- **Partnership:** the Manchester model of regeneration has formed the basis for successful regeneration projects for many years and continues to underpin the ongoing regeneration projects in the City, despite the current recession. This private–public partnership model has enabled risk to be shared and for heavily contaminated sites to be cleaned up though the input of both sectors.

- **Linking sites in a coherent whole:** linking sites which require regeneration is more successful than simply a piecemeal approach. This is true of hardcore sites which are often relatively small in size. Regenerating isolated sites and relying on overheated market valuations has led to speculation and then recession, particularly in the housing market in Manchester. Projects which have linked anchors of activity are likely to be more successful.

- **Getting infrastructure in place:** community building and re-shaping is not just about a focus on brownfields in isolation: it is about bringing an improved social fabric back into a community, and so building social capital and ensuring infrastructure is in place is essential. In East Manchester some sites continue to lie derelict and vacant because they have become stigmatised not only through contamination, but also through lack of infrastructure investment. In a recession public funds and private funds are limited, so alternative methods of financing are required.
6 Main Interview Findings: Osaka

6.1 Introduction
The research for Osaka was based on 14 interviews (face-to-face or telephone) with relevant stakeholders in Osaka Metropolitan area. Further details of the interviewees are presented in Appendix 5. This section describes the main findings from the semi-structured interviews23, based upon six key themes which emerged from the Manchester case study.

- Attitudes towards brownfield regeneration and redevelopment;
- Contamination and other barriers to regeneration;
- Hardcore sites;
- The role of the public sector in regeneration;
- Land and property markets and recession; and
- Current and future policy and practice: what can be done?

6.2 Attitudes towards brownfield regeneration and redevelopment
In Osaka, brownfield regeneration projects in the urban centre were relatively active in the early 2000s and there were only a few cases where projects were cancelled because of contamination. One developer talked about their acknowledgement of contamination countermeasure legislation:

‘We are, to an extent, prepared for contamination. When we buy land, in the contract we declare that remediation is the seller’s responsibility. It was very difficult to put this statement into the contract 10 years ago, but nowadays it can be done quite easily’

In spite of this positive change, a remediation consultant explained about the economic reality of soil contamination:

‘When somebody wants to sell a land, it is virtually impossible to avoid investigation of contamination. However, if you do not have the ‘leeway’ of cash, you cannot conduct the investigation and hence, the number of regeneration projects is proportional to the economic situation.’

An officer in the city council who is in charge of contamination countermeasures also pointed out:

‘Within the city there are not many pieces of land which cannot be used because of contamination. … However, people tend to weigh carefully the balance between the remediation cost and the land price.’

23 It should be noted that as far as possible the main interview questions used in Manchester were repeated in Osaka. However, due to the contextual difference from the UK in government policies, social and commercial system, some of questions were not directly translated, but slightly modified for Japanese stakeholders so they could understand their contents and context. Moreover, researchers in Osaka also used the questions as the basis for deriving key themes derived from key questions which were then discussed as a group with interviewees.
In the Japanese real estate industry soil contamination countermeasure is now reasonably well recognised since the launch of Soil Contamination Countermeasure Act (SCCA) in 2002. However, remediation cost has been still a burden for developers, especially in a weak economic situation.

In 2002, as we saw earlier in this report, the Urban Renaissance Special Measures Law\(^24\) and various policies to promote the regeneration of urban centre were also introduced. However, these policies did not contain the term ‘sustainable development’ and therefore did not include explicit policy support for regeneration projects involving soil contamination countermeasures. This point was identified by a development consultant, who suggested:

“In Japan, sustainable development is not widely recognised. To be precise, environmental policy for buildings is relatively well-established, and for a large scale development, planning permission will not be given unless the environmental load from the buildings within the development sites is reduced. On the other hand, although the term ‘sustainable development’ is used in the field of urban planning, there is no concrete policy support. In a project involving contamination or brownfield, it will not be given preferential treatment.”

Another developer suggested a similar deficiency:

“In Japan I do not think sustainable development is well-established. Only irresponsible policies have been in place, and there is no vision for the sustainable development.”

A development consultant in an architectural practice stated:

“Buildings have been evaluated in terms of sustainable development, but such assessment is generally not a rule for land development. If a building’s environmental load is reduced you get a bigger plot ratio, but there is no incentive for the regeneration of brownfield involving contamination.”

In contrast to the UK, therefore, ‘sustainable development’ per se is not yet ‘mainstreamed’ or ‘hardwired’ within the national policy of the Japanese government. There is not therefore a clear link between the development of greenfield sites and the regeneration of under-used land within urban areas, and consequently no clear national level instrument for promoting brownfield regeneration where land is contaminated.

In addition, the recent economic recession is casting a shadow over property development in Osaka. A developer in a construction company stated:

‘Until 2008, thanks to Act on Urban Renaissance Special Measures Law, in prime lands such as Umeda and Yodoyabashi, large scale development took place. For these prime sites, development for high-density buildings with extremely large plot ratios is permitted. After the bursting of the bubble economy, finally in the noughties the real estate economy started recovering...”

\(^24\) The Japanese government’s approach to the revitalisation of urban areas officially started with the establishment of the Urban Renaissance Headquarters in 2001, which was led by the then Prime Minister, Mr. Koizumi. The Urban Renaissance Special Measure Law was launched in 2002, and the basic policies for urban renaissance were drawn up (Otsuka and Abe, 2008).
... many building owners were thinking about reconstruction ... now, again because of a world-wide financial crisis, the economy is declining again ...

Although there was a turning point when real estate markets were truly recovered, after 2008, they plunged again. A remediation consultant suggested:

‘Tokyo is active but Osaka is not. People do not invest in large scale developments. Real estate does not attract cash now. No bank is willing to invest in such a market. ... properties in Osaka are not appealing, far much lower than that in Tokyo. If the same lending condition is applied, there are a very small number of appropriate lands in Osaka. This severe condition has no relation to contamination. Problem starts before contamination.’

A planner in an architectural practice stated:

‘Real estate markets in Osaka are very bad now. It is not the case that all development projects are cancelled, but currently many projects are not going forward. They are taking the attitude of 'wait and watch' to the economic climate. Cost per floor is going down, and rent from tenants is going down as well. If they continue development now, previous cost estimation does not hold up. In the current situation, buildings already completed ..., would not be bought by anybody.’

The real estate market in Osaka, which briefly recovered in the second half of the noughties, is therefore, very much like Manchester, currently in a very tough situation which has been affected by the world-wide financial crisis which erupted in 2008.

6.3 Contamination and other barriers to regeneration

The issue of contamination has been receiving increasing attention since 2002, when the SCCA (which tightened the regulation on land transactions) was launched. A developer undertaking many housing developments made comments on whether or not the contamination issue was in fact a barrier to the redevelopment:

‘Among many items to be studied, the contamination issue is the biggest one.’

Also an in-house real-estate development specialist of a construction company suggested:

‘Developers are very sensitive to contamination when they are developing apartment blocks. They know they are taking a high risk.’

Another developer who specialises in contamination countermeasures stated:

‘Contamination can be a barrier to the development. If we ask banks for money to develop a land with contamination, they would say, ‘no way’. Considering a stigma risk ... or a risk of legal actions by neighbours about the groundwater contamination, it is likely that financial institutions (banks) will hesitate to lend money.’

There are, however, different views on whether contamination is the biggest barrier to the brownfield regeneration. A development consultant in an architectural practice maintained:
‘Contamination is not the biggest barrier. … because of fragmented land or segmented ownership it is difficult to bring forward the development process all at once. These types of problems are bigger (than the contamination).’

An in-house development expert of another architectural practice suggested:

‘Development projects of old factory sites have never been cancelled due to contamination. The contamination issue can be resolved by remediation ….’

The same interviewee suggested:

‘The major barrier for redevelopment in high-density urban areas is the floor-area ratio. Because of regulation it is not simple to increase the floor-area ratio for the new building. Also it is difficult to get agreement with the land owner.’

Although housing developers still recognise the contamination issue as a barrier to the development, it is not necessarily the biggest obstacle therefore. Fragmented land ownership, regulations for development control, and reaching agreement with relevant land owners are considered as more critical issues.

In addition, a development consultant in an architectural practice highlighted obstacles regarding the support and subsidy from the central government for the development of contaminated sites:

‘For the brownfield redevelopment including contamination countermeasures, there is effectively no support from local governments in Japan. The development fund mainly comes from the land price, or land potential. If the project is financially feasible, we just take the clean-up through dig and dump.’

Another developer said:

‘… there is no policy support from the government, no offer of tax relief, and it (brownfield) is treated as exactly same as the other normal development …’

In conclusion, it is clear that the Japanese government has not so far provided any substantial support or incentives, such as tax relief or policy-related instruments, to stimulate brownfield regeneration per se. Brownfield has been treated in exactly the same way as other types of development, which is in contrast to England where limited tax relief is available. For example, in Japan there are two types of financial incentives from the Central Government: 1) tax relief and 2) interest-free lending. However, the application of these incentives are restricted by a number of regulations. For example, the tax relief cannot be applied during the scheme’s planning phase, and it is only possible to use just before the construction starts. Moreover interest-free lending can only be used for the construction of a limited public infrastructure (e.g. pedestrian pathways).

6.4 Hardcore sites

When a plot of land is contaminated, located in a remote area or has multiple ownerships, the plot tends to be left undeveloped for a long time. In the current economic slump, it is far more difficult to regenerate these hardcore sites. A developer who succeeded in developing a hardcore site suggested:
‘For this project we have got funding from a major commercial bank. We managed to gather funds for land cost and remediation cost. However, it is very questionable whether the same fund raising is possible now. When we borrowed the money, we could convince them about the lending, based on our own capability of handling the risk of contamination. However the same argument may not work today.’

A development consultant in an architectural practice said:

‘Regardless of contamination, financial institutions have less lending capacity for investments on risky real estate. In a booming economy, even for a land which has been left undeveloped for a long time, banks would invest on it because, although it is risky, a high return can be expected from the investment. This logic does not apply now. Currently there is a larger risk on real estate in general and they are reluctant to invest on contaminated brownfields, although they would not say that explicitly.’

The economic downturn since the end of 2008 has had an extensive impact, and financial institutions have been hesitant to lend money on the redevelopment of land with contamination. A developer commented on assembling funding for development:

‘Even for a commercial site development, almost always dig and dump is adopted for remediation because if there remains contamination on the land, it would become difficult to borrow money from financial institutions. Fund raising does not depend on a developer’s financial credibility, but on the potential of individual site. The land itself is evaluated as collateral. If any contamination remains (even after in-situ remediation), financial institutions become hesitant to lend. They are very nervous now.’

A development consultant commented on the attitude of the private sector to the regeneration of such hardcore sites:

‘The sites left undeveloped up to now are those where profit was not expected even in the booming economy. It is not possible for the private sector to invest in such sites under the current economic downturn.’

On the other hand, some developers see this economic downturn as a business opportunity and they are active in purchasing land. A remediation expert pointed out:

‘Real estate prices have gone down substantially now and some companies recognise this as a big business opportunity … companies in industrial conglomerates and those having cash are scooping real estate up at rock bottom prices.’

Another development consultant said:

‘Enterprises with mid/long term regeneration visions and cash-rich developers are now enthusiastically buying land… … for cash-rich developers it is a business opportunity because the level of the land price is very low.’

Another developer, who identified the development of hardcore site as a new niche business opportunity, pointed out:

‘The number of open tenders for contaminated sites seems to be increasing. Although hardcore site development seems to be risky, once you know inside
and out about the hardcore site development, you are not afraid of it. Rather, it is your strength, and could give you business opportunities.’

A developer who specialises in contamination countermeasures said:

‘Rather than investing a huge amount of money for countermeasures, we tend to adopt a containment method to curb the diffusion of contaminants and then use the land. The cost of this type of land is low. Even if such lands become designated areas by SCCA, we can use only the surface (of the land). If we can get a land rent income, considering the low cost price, we get a high yield therefore the business model is feasible.’

The same developer explained about the viability of the clean-up cost within the whole redevelopment cost:

‘Roughly speaking, if the total of land price, overhead costs, and remediation cost is lower than the 40% of the market land price of the area, we cannot make ends meet.’

The regeneration of hardcore sites, often accompanied by contamination, is seen as high risk and in the current economic downturn, financial institutions are reluctant to fund the development. On the other hand, there are cash-rich developers who take the current low land price as business opportunities and are able to buy land at rock bottom prices.

6.5 The role of the public sector in regeneration

In the current economic downturn, the role of the public sector is extremely important. A public sector interviewee suggested:

‘Our role is to participate in the planning of development for land which for the private sector is difficult to invest in, and also to champion the projects.’

In contrast, a development consultant identified difficulties for the public sector to play their role in regenerating high-risk lands.

‘In Japan there is not a good mechanism by which the central government can provide definite support for the private sector to undertake such high risk developments. On the contrary even the public sector institutions would only undertake the development when the site meets financial feasibility.’

This comment has been echoed by a public sector agent:

Except for lands in urban centres, whether contaminated or not, they are very difficult for us to take it forward because they are not economically feasible.’

It seems that Japanese public institutions promoting developments tend to emphasise economic feasibility and their role has become more and more similar to that of the private developers. An in-house development consultant in an architectural practice outlined the reasons for this problematic situation:
‘URA (Urban Renaissance Agency)\textsuperscript{25} is supposed to manage the process of assembling sites with fragmented ownership in cooperation with the public and private sector, but in the current situation it is difficult. Both URA and MINTO\textsuperscript{26} were acquiring land, which is effectively buying land in difficult situations for development and retaining it until the land price of neighbouring areas goes up again and the economic situation gets better. Meanwhile, they could improve infrastructure and sell it again with added potential. ….However, they were already told to stop doing this by MLIT because URA has so far accumulated a number of sites which are loss-making (unprofitable). Now it is difficult to get permission to resume the operation unless we have a higher principle from the central government of why URA has to do this (to buy such lands).’

Another remediation expert made similar comments:

‘It is difficult to identify to whom the government should provide funding. Is it really good to provide funding to private companies or developers? There is no way to prove the validity of government spending (for brownfield development).’

An officer of a public institution suggested there needed to be a clear strategic vision for urban regeneration spending:

‘Until now most regeneration projects start with the development of a large scale vacant land. From now on, however, for the regeneration of a high-density urban centre, or a town centre location in a local city, we need to utilise under-used land. Development projects should not be triggered because of existing vacant lands, but we need to have a clear future vision of the redevelopment before we start the regeneration process.’

Clearly in Japan, public sector support is indispensable to promote the regeneration of hardcore sites, but in order to help facilitate the government support, a set of concrete social objectives which ensures public benefit must be established in advance. Japanese policy lacks a clear focus in this respect.

\subsection*{6.6 Land and property markets and recession}

Japan experienced a property price crash in the 1990s. After this there was a substantial recovery in the Japanese real-estate market in Japan. As a developer pointed out:

‘We experienced the bursting of the bubble economy in the 1990s. The following 10 years is called “a lost decade” and continued until the early noughties. After that period the profitability of real-estate markets regained strength. However, at that time the Lehman shock came and the market fell back to a slump again.’

Another developer summarised the last 20 years of property markets in Japan:

\textsuperscript{25} This is a Japanese Government agency equivalent to English Partnerships. It tackles all kinds of urban renewal issues in strong partnership with regional public institutions and private businesses, http://www.ur-net.go.jp/sitemap/english.html

\textsuperscript{26} MINTO is an organisation launched based on a law for promoting private sector-led urban development in 1987. MINTO is fully supported by the central government and their role is to assist the private sector in urban development by providing financial support including guaranty of liabilities and bond acquisition. See http://www.minto.or.jp/
‘The land price has been going down all the time since the bubble economy burst in the 1990s. I am talking about the increase and decrease in the real-estate price. Since 1991 the rate has been positive for only a few years. For the rest of the time the rate has been always negative. It is unlikely that the real-estate price will return to the level experienced in the bubble economy. The price of real-estate was too high at that time.’

A number of issues in the real-estate market and economic downturn were suggested as being important by several interviewees after the credit crunch of 2008. An in-house development expert of a public institution commented:

‘Land sales are effectively stopped now. Some on-going projects stand still because of financial difficulties in the contracted company. Because of the current economic downturn, companies are restructuring their facilities. A movement “from premises to equipment” has been experienced.’

A developer described the funding for a development project from financial institutions in the current worldwide economic downturn:

‘It was feasible before the Lehman shock. Now contamination is not the central problem. Funding for the development project itself is the problem because of “curled up” financial institutions. If you ask money for risky land, the answer will be simply “no way.”’

In relation to the investment for real-estate or real estate securitisation, an in-house development expert in a construction company suggested:

‘After the bursting of bubble in the 1990s, a new approach to property development such as REIT and securitisation of real-estate has become available in Japan. These are one of Japanese governments’ policies to revitalise the real-estate economy. Because of the credit crunch however, the policy has stopped working.’

Another expert also pointed out:

‘Real-estate investment is in paralysis. Before the Lehman shock foreign funds were buying Japanese properties, but they have already withdrawn from the market.’

Another developer commented on the recent real-estate market:

‘It is in an extremely difficult situation. Since no institution (bank) offers nonrecourse loans, it is difficult to handle large scale properties. Most financial institutions do not invest on new building construction. Companies from former industrial conglomerates have their own main bank and hence are in a better position, whilst newcomers are in difficult positions. … For several years, urban regeneration may stand still. REITs are effectively shattered. They do not offer refinancing and small companies are at the risk of default. Because of a future employment uncertainty, flats are selling very badly. People are afraid of taking out a loan.’

Another expert from a construction company described the demand and future prospects for redevelopment projects in Osaka:
'Real-estate prices and rents are decreasing now. Since we have bought the land at a high price, projects have become economically not feasible and we are in a very difficult situation. In Osaka, ... an extensive office space will be provided to the market through on-going developments. However, there might not be enough tenants to fill the office spaces in Osaka. That is the problem.'

6.7 Current and future policy and practice: what can be done?
It is evident that the background conditions for brownfield regeneration are currently extremely gloomy in Osaka. A development consultant explained the current state of the public sector:

‘In Japan there is no mechanism with which the central government provides certain support for the private sector to undertake such high risk developments. On the contrary even the public sector institutions will only support the development when the site is financially feasible.’

A developer discussed the attitude of the private sector:

‘Even if green development is preferable, private companies cannot make it happen because they have to prioritise profitability. In order to create attractive towns, legal enforcement or regulation is necessary.’

An in-house development expert of a construction company explained the current situation in Osaka:

‘The city of Osaka has been facing a financially hard time, and both the central government and local government have not come up with any effective action to get out of the current situation.’

A consultant in an architectural practice suggested more effective government support was necessary:

‘The government needs to be selective. It is not possible to distribute public investment everywhere evenly. Also government support should put more weight on competitive subsidies. Local governments should make efforts for proposing creative development ideas, and the central government should support only good ones. Uniform support will not be effective.’

It was also suggested by two interviewees that although Emergency Revitalization Districts had provided some benefits, their overall impact in the case studies had suffered in the wake of changes in political administration in Osaka and also because of the recession itself. It was felt that private companies believe that the central government should implement policies with a long-term vision for the brownfield regeneration. A development expert of a construction company discussed government policies:

‘The central government is only taking a short term view for fixing urgent issues while a long-term vision has not been considered. The public sector and private sector should think more seriously about strategic approaches to our future. The central government needs to take action now.’

Another developer suggested the importance of the public and private partnership:
'By using a government-supported system we can get a better credit rating. People could raise expectations for MINTO. Borrowing from the government might lead to big forward steps, when it is hard for the private sector alone. Fund-raising is very hard unless we have back up (from the government). The government needs not only to rescue SMEs but also to judge whether or not projects have social significance.'

A development expert of a construction company said:

'If urban development is conducted along with a long-term strategy by the public sector, the private sector might ride it well.'

Under the severe economic conditions affecting both local and central governments, it is not effective for the central government to simply initiate and implement policies unilaterally. Preferably partnership working between the public and private sectors is essential and therefore indispensable.

6.8 Summary

Attitudes towards brownfield regeneration and redevelopment
The awareness of soil contamination countermeasures has been gradually raised amongst real estate and development professionals since the launch of SCCA in 2002. In Japan, however, the concept of sustainable development has not yet been widely recognised, in contrast to the UK where sustainable development is positioned as a part of key Government strategies for delivering urban regeneration programmes. Although the term ‘sustainable development’ is used in Japan, the terminology does not convey an explicit link between the reuse of previously developed land and the prevention of greenfield development.

Contamination and other barriers to regeneration
Contamination, although recognised as one of the key barriers to redevelopment developers, is not always seen as the biggest obstacle to brownfield re-use. Rather, fragmented ownerships and development control as well as lack of agreement with landowners were seen as acting as bigger barriers. In Japan, there is a marked lack of government-led incentives (e.g. tax relief, policy instruments) for developers to develop brownfield sites. Developers have to follow the same procedure in dealing with brownfield sites as they do with more ‘normal’ and less ‘problematic’ sites (i.e. greenfield sites). In addition, Osaka faces severe economic decline affected by the world-wide recession in 2008, despite the fact that the Japanese property market temporarily recovered in the second half of noughties.

Hardcore sites
In the current recession, it is extremely difficult for financial institutions to make any lending decisions for brownfield redevelopment which have inherent risks. On the other hand, some developers see the decline of land prices as a new business opportunity and can acquire land at very low prices.

The role of the public sector in regeneration
The Japanese public institutions which are promoting regeneration tend to put more stress on project profitability, and this has resulted in the sector being seen as replicating the role of private developers. In order to regenerate risky brownfield and hardcore sites which many developers are unwilling to undertake, it is essential to have strong support from the public sector. To justify and maximise
the public sector's support, it is necessary to clarify the social goals responding to a variety of public interests. Nevertheless, it is problematic to formulate a roadmap for regeneration since Japan lacks a national strategy or ‘slogan’ for promoting urban regeneration in contrast to England.

**Land and property markets and recession**

Real estate prices in Japan had been falling since the bubble economy burst in the 1990s. Despite a subsequent recovery in the credit crunch of 2008 there was a further fall in real estate prices. In the current economic recession, it is extremely difficult to borrow money from any financial institutions for the development of high-risk land such as hardcore sites, and regeneration of these high-risk sites has become much harder than before. In particular, contamination is considered to be a serious drawback and bank lending on such sites is difficult to achieve. In the next few years a large amount of new office space will be supplied in Osaka, but the demand for the office space will be comparatively low. In this situation new regeneration projects in Osaka may well not be feasible in the near future.

**Current and future policy and practice: what can be done?**

The private developers who were interviewed suggested that there is a need to implement government policies based upon a long-term national vision for brownfield regeneration. Since local governments now face financial difficulties, it is not enough for the central government to simply unilaterally implement policies, and the central government really needs to encourage public-private partnerships much more than it has in the past.
7 Osaka Case Studies

7.1 Introduction
The five case studies which were identified in this research were sourced from the 14 interviews conducted with key stakeholders in the Osaka metropolitan area. The locations of the case studies are shown in Figure 7.1.

Figure 7.1 Location of case studies in Osaka

Four of the case study sites are located in Osaka City within 6 km from the City Hall. Two of these are completed projects, comprising Universal Studio Japan which had been developed prior to the launch of Soil Contamination Countermeasures Act 2003 (SCCA), and Hotarumachi which had been completed after the introduction of the SCCA. A further two sites are continuing towards completion (Osaka Station North
District and Minatomachi) and the final case study represents a characteristic example of a hardcore site which is located in the suburb outside the boundary of Osaka City (Kaizuka Kitamachi). Although this site had been left vacant for an extensive time, a regeneration plan of the site has been recently established. The Hotarumachi, Minatomachi and Osaka Station sites are in designated Emergency Revitalization Districts, but in the case of the former, the development framework had already been finalised before these zones were introduced in 2002.

7.2 Case studies

7.2.1 Hotarumachi

The Hotarumachi project is based around the regeneration of a former University hospital site located in central Osaka (Figure 7.2). The site covers some 3.2 ha and had been vacant since the University hospital was relocated in 1993. This site was divided into two regeneration areas: east and west districts. The east district (11,240 sq m) was successfully regenerated and included accommodating Nakanoshima joint government buildings in 1998. In contrast, the development of the west district (21,200 sq m) did not progress as quickly as the east side, and finally in 2002 Urban Renaissance Agency (URA) obtained the site which took a form of exchange with another site in Kyoto (35Km north east from Osaka) owned by URA. The cost of the clean up of the contaminated site was paid for by the polluter, the University Hospital. URA subsequently organised a competition for the development framework for the site in 2003, and consequently, a joint venture of Asahi Broadcasting Corporation and Orix Real Estate won the bid. The project was completed in April 2008 and comprised 631 homes in a high-rise building, 43,000 sq m of office space and 37,614 sq m of retail and cultural space, including a concert hall. At the time of the project completion, an extension route of the Keihan Railway (i.e. Nakanoshima Underground Line) was also opened to link with the new station which is situated in close proximity to the site.

Figure 7.2 Hotarumachi (courtesy URA)

---

27 This is a Japanese Government agency which is equivalent to English Partnerships: http://www.ur-net.go.jp/sitemap/english.html. See Chapters 5 and 6 of this report.
In addition, Hotarumachi is part of one of the Emergency Urban Revitalization area (West Section of Nakanoshima Island)\textsuperscript{28}, which were designated by Osaka City Council for the purpose of promoting regeneration (Figure 7.3). The West Section of Nakanoshima, located in an island surrounded by two rivers, has been recognised as providing a pleasant waterfront environment in the urban centre, and a number of public buildings (e.g. Osaka City Science Museum and International Convention Centre) are concentrated there. This area also has the potential to be further promoted as a new zone creating a centre for international, cultural, academic, IT and communication. The development concepts for this site maintained by the Osaka City Council comprise (OURP, 2007a):

- Attracting Japanese and foreign international companies.
- Developing an “International cultural exchange zone” with facilities to transmit cultural information worldwide.
- Creating an attractive waterfront promenades for strolling along the rivers in beautifully landscaped surroundings.
- Promoting housing for non-Japanese residents working in Osaka branch offices of foreign companies and increase the residential population in the city.
- Enhancing visitor attractions with the construction of commercial facilities and public spaces that will coincide with the end of fiscal year 2008 opening of the Keihan Nakanoshima Underground Line.

Figure 7.3 West Section of Nakanoshima Island (courtesy PCBO)

\textsuperscript{28} The \textit{Urban Renaissance Special Measure Law} was launched in 2002, and the basic policies for urban renaissance were drawn up identifying the Emergency Urban Revitalization Areas for injecting extensive investment in order to implement the revitalisation of urban areas (Otsuka and Abe, 2008: 37)
The development was initially triggered by the relocation of the University Hospital. Although the majority of development sites in Japan tend to be owned by a number of landowners, Hotarumachi had a relatively large part of its site of land (2.1ha) owned by a single landowner which was beneficial in development terms. Furthermore, the following factors also had positive impacts on the project:

- URA’s effective role in coordinating the development;
- soil clean up in the early stage of the project which helped in eliminating stigma; and,
- the timely decision for the Keihan Railway extension.

7.2.2 Minatomachi

Minatomachi is situated in the Namba area, the southern gateway of the Osaka prefecture (Figure 7.4). The site (which has an area of 17.5ha) comprises the former JR29 Minatomachi station and cargo terminal attached to the station. The area had been vacant after the abolition of the cargo terminal in 1985. However, with the opening of the Kansai international airport in 1993, the Minatomachi station was moved underground and redesigned to create a new passenger terminal building, Osaka City Air Terminal (OCAT), for the railway and the bus route leading to the Kansai International Airport, and the surrounding area was redeveloped, focusing on the OCAT. Also in order to facilitate a bus access, a turnoff from the Hanshin Highway Ring Road was constructed (OURP, 2007b).

Figure 7.4 Overall picture of Minatomachi area (courtesy Minatomachi Development Centre)

The area spreads towards the north and south of the Hanshin Highway which itself runs through the middle of the site. The northern part of the site is a waterfront zone (2.8ha), accommodating a range of facilities which includes an access to the Hanshin Highway and commercial spaces, and the regeneration was designed to generate cultural creativity and information exchange area. In order to create an attractive and lively space, the characteristics of the waterfront were fully utilised and a mixed-use building, Minatomachi River Place (21451 sq m) comprising offices, shops and a multi-purpose hall, was completed in 2002.

The southern side of the site away from the Hanshin Highway consists of further two development zones, New Terminal Zone (5.4ha) in the north, and New City Zone (5.3ha) in the south (Figure 7.5). The New Terminal Zone is developed around the

---

29 JR (Japan Railway) is the main railway operator in Japan and privatised in 1987.
City Air Terminal and is directly connected to the highway and railway. Benefiting from the urban central location, offices, housings, hotels and commercial facilities are planned. The OCAT passenger terminal with the total area space of 11,200 sq m was completed in 1996. Office buildings and hotels covering some 25,000 sq m and a hospital are open as well as two high-rise buildings, and 650 homes for sale have been completed within the zone.

The New City Zone in the south created a public space in its central location with the site representing a holistic development concept as a space for information exchange and cultural creativity (City of Osaka, 2009a). In 2002 a competition for the re-development plan was held and some 35,000 sq m of offices; high-rise apartment blocks (973 homes); and 12,000 sq m of a large scale commercial outlet with show rooms have all been completed. The zone is directly connected to Osaka municipal underground railway (Yotsuhashi-line), JR Minatomachi-line and another private railway line. Moreover, the adjacent Namba area has three stations served by three railway lines (a private railway line and two different underground lines).

Figure 7.5 Alignment plan of Minatomachi area (PCBO, 1998)

The development of Minatomachi area was initially triggered by the privatization of the former Japan National Railway, and its decision to dispose of under-used land such as cargo terminals. The key drivers for the development were firstly its excellent location in the southern gateway of Osaka prefecture, where a number of railway lines from the south and east sides of the prefecture intersect. The second aspiration was the completion of the OCAT in 1993 which coincided with the opening of Kansai International Airport. During the recession, and after the bubble economy burst, development stood still at the site, but in 2003 the development re-launched. Some parts of the New City Zone and the New Terminal Zone required soil contamination countermeasures, but it did not hinder the development significantly. A clear and long term vision of the development plan by Osaka City government has been instrumental in the success of the project.

7.2.3 North Station North District

This area includes a large number of railway stations, such as the JR Osaka station which is the largest terminal in the western Japan, and hence provides a very high degree of accessibility. Moreover, its surrounding area accommodates many large
scale commercial facilities and the headquarters of a number of businesses. Despite these positive factors, the site had been left derelict since 1992. By exploiting the location, the master plan for the area aims to build a new urban space which will exemplify the shape of future development for much of western Japan. The new urban space will provide a basis for knowledge creation and supply a range of service and knowledge-based goods and services (City of Osaka, 2009b) (Figure 7.6).

The area is a vacant lot of a former JR cargo terminal some 24ha in area. In 1992 neighbouring Osaka Railway Administration was relocated. The cargo terminal itself was also planned to be relocated to two different cargo terminals in neighbouring cities, but negotiation with the local government and residents faced extensive difficulties and finally the relocation was decided in 1999. In 2002 a large scale commercial building was completed in the vacant lot of the former Osaka Railway Administration (2.2 ha), and currently further construction works, which were set as a priority development area on the east side (6.8 ha), are ongoing. The development of the remaining area on the west side is planned to start during 2010.

Figure 7.6 Rendering of the priority development area (courtesy URA)

The development plan for the Emergency Urban Revitalization area (6.8 ha) is subdivided into three planning areas which comprise Zone A (10,570 sq m) in the south, Zone B (15,000 sq m) in the centre and Zone C (12,344 sq m) in the north (Figure 7.7). Zone A is adjacent to the JR Osaka Station and expected to receive a large number of visitors, and therefore the development plan is designed to comprise mixed-use facilities for commercial and service activities, exploiting its extremely convenient accessibility. Currently, a commercial complex (44,800 sq m), an office building (76,300 m2), and an IT centre (5,700 sq m) are planned to be built in the area. Zone B (15,000 sq m) is being developed to accommodate facilities for a "knowledge capital" which were advocated in the "Osaka Station Northern Area Urban Planning" (City of Osaka, 2009b). It also includes other commercial, business, housing and hotel facilities. Currently a mixed-use development for the knowledge capital (48,300 sq m), a commercial centre (27,400 sq m), and a major office development (74,300 sq m) are planned to be constructed. Zone C is designed to be mainly used for housing. Currently high-rise buildings (73,800 sq m) for apartments and a hotel (24,500 sq m) are also planned to be built.
For this development plan, the City of Osaka highlighted five main pillars for urban design principals (OURP, 2007c):

- **Creation to the world:**
  To enhance the urban functions and introduce sophisticated infrastructure to provide better services as an international hub to Asia and the rest of the world.

- **Visitor attractions:**
  To create pedestrian-friendly urban spaces that facilitate personal interaction, encourage creative urban activities, and contribute to the prosperity of the district.

- **Development of a Knowledge-Capital:**
  To develop a Knowledge-Capital where concerted efforts are made to create new industries, technologies, cultures, and values and publicise them throughout the world.

- **Public-private cooperation:**
  To promote community development with an eye toward enhancing the community needs and ensuring the effective operation and management of public spaces.

- **Cityscapes with full of streams and tress:**
  To create a cityscape full of water and greenery to offer a pleasant and relaxing environment to urban residents and workers.

The development plan was also fostered by the privatisation of the former National Railway and its decision to sell off under-used facilities such as cargo terminals. However, the development operation in this area did not proceed well. Initial delays in the development were caused not only by the relocation of the cargo terminal (for
which lengthy negotiation with the local government and residents was required) but also by the recession in the mid 1990s.

The key drivers for the development of this site were the extremely convenient location in a close proximity to the JR Osaka Railway Station; strong support (e.g. tax relief, relaxing planning regulations) by Osaka city council; a booming real-estate economy between 2005 and 2007; and excellent coordination by the URA organisation. However, the global recession since 2008 has had a severe impact on the project and decreasing land prices have necessitated close monitoring of the development for the future.

7.2.4 Universal Studio Japan

Universal Studio Japan (USJ) is the core facility within Konohana Western Bay Area. This district is located at the west side of waterfront with a relatively far (6 Km) from the Central Osaka (Figure 7.8). The total site area of the district is 156.2ha, and the site is bordered by two rivers on the north and south sides as well as a main road (City Road Fukushima-Sakurajima line) and a highway linking Osaka and Kobe (Hanshinn Highway Osaka Bay line). Although the area was historically designated as a restricted industrial zone accommodating large-scale factories for metal, transport and ship-building industries there was, in the face of the recent deindustrialisation, an increasing amount of vacant and derelict land which required urgent redevelopment. In parallel with the construction of the USJ, the District Plan (City of Osaka, 2009c), which included adjacent areas, was therefore prepared. To improve transport infrastructure, an access route to the highway was built and a new station (named USJ) was also created by altering the original route of JR Sakurajima Line in parallel with an increased number of train services.

Figure 7.8 Universal Studio Japan (courtesy City of Osaka and USJ)

The site used the ‘Land Readjustment Act (originally implemented in 1954)\(^{30}\) which resulted in the division into six different quarters (A to F) (Figure 7.9). Quarter A has a plan for improving green landscape and exploring a range of commercial land uses on the site, which includes an existing energy supply plant. Quarter B is designed to create an R&D centre for audio-visual companies, IT, and high-tech industries, but the development has not yet started. Quarter C (approximately. 59.6ha)

\(^{30}\) A development strategy whereby an irregular pattern of agricultural land holdings or consolidated portions of the city are rearranged into regular building plots and equipped with basic urban infrastructure such as roads, and drains. Part of the land is contributed by every single owner, in order to rehabilitate public areas and other relevant land (Carolina, 2009)
accommodates the core facility, USJ, which opened to public in 2001. Quarter D (approx. 16.6ha) is planned for a mixed-use development including hotel, commercial and cultural facilities which will provide a traditional style market, exclusive retailers offering imported goods, and an audio-visual leisure centre. In close proximity to the station, a hotel (600 rooms) and a wedding centre situated on the east side were completed in 2005, although the implementation for the west side has slowed in the recession. Quarter E (approx. 11.2ha) is the area adjoining the new station and the USJ. It is designed to create another mixed use development including not only visitor facilities such as commercial, hotel and Information functions, but also housing, parks and green space. To date, a set of three hotel tower blocks (1,427 rooms) and commercial and office buildings were completed in 2001, and 884 homes (for sale) were also completed after 2005. Finally, Quarter F (approx. 3.0ha) is planned to comprise housing, park and green space as well as the integration of existing transport infrastructure functions (passenger train, freight and vessel). As yet, however, the development has not commenced (City of Osaka, 2009d).

Figure 7.9 Outline Map of Konohana Western Bay Area (PCBO, 1999)

The site itself contains formerly contaminated land which was used as an industrial waste disposal landfill. However, at that time, the SCCA was not yet enforced, and therefore the clean up of the site was carried out as a part of Environmental Assessment by being based on existing environmental criteria. Overflowing contaminants (e.g. lead, arsenic mercury and chromium hexavalent) were disposed of through ‘dig and dump’. In addition, part of the site was reclaimed after further seepage control work, and has since been used as a car park for USJ.

The initial plan for the development site was to bring in an American style amusement park. When the project started in 1994, Japan had already begun its long term recession yet the development did not stall. This is because that Osaka City Council was proactively involved in the development by purchasing all reserved lands generated through the land adjustment as well as funding 22% of the capital for setting up USJ Co. Ltd. (approx. 10 billion Yen). Furthermore, the improvement of transport infrastructure (e.g. railway and roads) contributed substantially to the success of the scheme.

7.2.5 Kaizuka Kitamachi
Senshu district is located about 30 km south from Central Osaka (the equivalent of 30 minutes by train). Kaizuka City is situated in the middle of the Senshu district. Although the district prospered as the centre of the largest textile industry in Japan
since the 1960s, many factories had to close down due to the rapid change in the industrial structure. This particular site was the former TESAC Corporation Tsuda factory producing synthetic ropes which was one of the larger factories in Kaizuka (Figure 7.10). An adjacent west site, which was the former factory of Tekikoku Industry Co, Ltd. (textile industry) (5ha), was redeveloped by accommodating 250 detached houses and 740 homes in high-rise apartment blocks.

After the Tsuda factory was closed down in 1995, the site (4.9ha) was left vacant, but was then purchased by MINTO\(^3\) in 1998. MINTO looked for buyers for this site without success because contamination was detected. The main contaminants were lead and trichloroethylene in excess of the contaminants’ standard level of safety determined by the SCCA (Figure 7.11).

In 2008, a developer, Daiwa Systems purchased the site from MINTO and sold the site (partly for commercial use (3.3ha) and housing (1.6ha)) after undertaking the clean-up by Takenaka Civil Engineering and Construction Co. Ltd., at a cost of 12 billion Yen. Development of a large superstore (total floor area 2,000sq m) and 125 detached houses is currently implemented.

**Figure 7.10 Vacant Land of Kaizuka Kitamachi**

Two key drivers led to the successful regeneration of this site. Firstly, the land purchase price in the local town, which was relatively far from central Osaka, was at low enough level when combined with the cost for remediation, to make the project viable when the increased end use value was taken into account. Secondly, the local authority played a proactive role in promoting the housing development. In the economic downturn this type of brownfield regeneration is seen as a niche business model in local towns, and also in suburban areas of Osaka, and this is evident from growing number of similar examples within the Senshu district.

\(^3\) MINTO is an organisation launched in 1987 and is based on a law for promoting private sector-led urban development. MINTO is fully supported by the central government and their role is to assist the private sector in urban development by providing financial support, which includes the guarantee of liabilities and bond acquisition. (http://www.minto.or.jp, available only in Japanese)
7.2.6 Critical success factors

From the interviews and background information gathered for the Osaka part of this project, five critical success factors for regenerating hardcore sites are suggested:

- **Well coordinated regeneration schemes by the public sector**: the public sector such as URA should be proactively involved particularly in bigger scale development projects. Their role in coordinating the regeneration schemes is instrumental in finalising a masterplan in collaboration with key stakeholders, as well as purchasing development sites and designing a proposal and business plan in order to decide developers of the sites.

- **Improving transport and urban infrastructure**: improving access to existing railways and highways and creating high quality urban blocks with improved accessibility through the land adjustment can significantly contribute to adding values to sites. This is an important incentive for attracting private sector funding.

- **Large-scale (flagship) projects for neighbourhoods**: flagship projects can play a key role in attracting further funding for the development not only at neighbourhood level but also for the surrounding area as a whole. In a recession, the more proactive involvement of the public sector is crucial throughout the regeneration process.

- **Falling real estate prices as an opportunity**: there have been new business opportunities brought about by falling real estate prices which has

---

32 It was also suggested by two interviewees that although Emergency Revitalization Districts had provided some benefits, their overall impact in the case studies had suffered in the wake of changes in political administration in Osaka and also because of the recession itself.
resulted in balancing the gap between the development demand and the land price, when remediation of sites is technologically feasible.

- **Long term visions**: in the face of changes in market demand and economic trend, a long term development can only be achieved by maintaining a long term, and clear vision. Continuous support from the central government and public sector agencies should be in place to run such schemes successfully.
8 Conclusions

8.1 Introduction

In this section of the report the main conclusions from the research are synthesised, and the lessons learned from both Manchester and Osaka are summarised.

International comparisons are, of course subject to caveats. It is clear that, for example, there is no ‘universal model’ of urban regeneration, and transferability in differing contexts is often difficult. Moreover in qualitative research of this nature there is often a matter of judgement involved in identifying common themes (Cadell et al 2008). Nonetheless we do believe that there are key common themes which emerge strongly from the research we have conducted and that an international comparison enables us to develop more innovative solutions for successful regeneration of hardcore brownfield sites.

The research, which was based on some 31 interviews and 10 case studies in both cities, therefore enables important comparisons to be drawn in terms of:

- Context;
- Practice; and
- Decision-making and policy.

8.2 Comparing contexts: England and Japan

8.2.1 Planning and regeneration

It is important to understand that Japan’s planning system is not only less restrictive than England, it is also relatively less well-integrated with environmental policy. Although planning law has been amended from time to time, the basic structure has remained relatively unchanged: the national government in Japan sets a framework which is applied nationally and locally (through municipalities and prefectures).

In contrast to England there has not been a strong explicit focus on brownfield redevelopment within the context of a sustainable development agenda, but the economic recession of the 1990s was seen as a broader opportunity to re-invent Japan’s urban areas with a liberal, relatively unregulated ‘competition’ policy built around the Urban Renaissance Special Measure Law. Japan’s relatively weak planning system and its ‘lost decade’, following the bubble economy of the late 1980s have therefore led to a policy emphasis on ‘competition’ in urban regeneration. This has seen the emergence of ‘zones of exception’ which comprise ‘Urban Revitalization Zones’ underpinned by tax breaks and other financial incentives.

8.2.2 Property markets

In Japan, land is regarded as a separate asset from the building and so the term, ‘land price’ is usually used instead of ‘property price’. Therefore ‘property price’ in Japan usually comprises land price plus building price which are calculated separately. As far as the residential market is concerned the separation of land and building value in Japan, combined with the cultural distinctiveness of short housing...
lifespan (i.e. ‘scrap and rebuild’), means that residential building values depreciate very rapidly over 10-15 years.

Japan’s recession after the peak of 1991-2 was long-lived. This post-bubble period during the 1990s is known as the ‘lost decade’, with rates of growth at less than 2% pa. Although the economy began to recover during the first part of the 2000s, the current economy is still not as strong as it once was. The Japanese property recession following the peak of 1991-2 has lasted a considerable time, and the recent bottoming out (as evidenced by land price movements) in 2007-2008 preceded a more recent fall in 2008-2009. In contrast, the recent downturn in England (and Wales) appears to have been relatively more dramatic.

A similar picture emerges in relation to house prices, with significant increases globally in house prices from 2000-2009, but in Japan a very much flatter market. This is partly attributable to some key differences. At 61% in 2008, Japan’s home ownership rate is lower than the US and the UK but higher than some continental European countries such as France and Germany. The so-called buy-to-let loans that were popular in the UK did not gain popularity in Japan during the recent housing boom, perhaps because buyers were influenced by the lost decade value decline in 1990s. Because Japan’s home ownership rate is moderate (two of every five households are renters) relative to peer countries, mortgage debt as a share of GDP is also maintained at a sustainable level.

Commercial real estate performance has also followed a similar pattern in Japan, although the recent fall in the CBRE index has been less severe than in the residential sector, reflecting the relatively stronger fundamentals of capital and rental growth in the commercial property sector.

### 8.2.3 Brownfields and contamination

Japan’s environmental history is perhaps best encapsulated by two themes: the tragedy of sustained environmental damage during the rapid period of economic growth during the 1950s and 1960s, followed by the country’s success in combining the control of industrial pollution with, at least until recently, continued economic growth.

Japan’s distinctive housing and real estate markets are very different to England’s but Japan’s resilience to continuing flat property markets may hold lessons for the UK and elsewhere in the wake of the current recession.

In terms of contaminated sites in both England and Japan, voluntary cleanup continues to predominate. In Japan, exemptions within the SCCA appear to have contributed to the relatively slow progress in the clean-up of contaminated sites. In both countries, ‘hardcore’ sites pose a particular issue, particularly in the context of an economic recession which makes it less likely that marginal sites will be cleaned up and redeveloped. Moreover there is not the same focus on house building on brownfields as there is in Japan and in any event the nature of the Japanese house building industry is also very different to that in England, with modern methods of construction and offsite techniques more common, and a ‘scrap and rebuild’ culture with significantly shorter lifetimes for houses in Japan.

Japanese companies have also focused very clearly on proving their environmental credentials through the detailed analysis of site cleanup in their corporate responsibility reports which focus on business units to be sold, closed or demolished. Much of this work is voluntary, however, and Japan also suffers a lack of basic data and information on the nature and extent of both contaminated and brownfield sites.
Alongside a grant system for cleanup there is also the opportunity for Japanese businesses to obtain interest subsidies from the Japanese Environment Association (JEA) if they currently have a loan through the Development Bank of Japan or the Okinawa Finance Corporation (JEA, 2009). More recently other private sector initiatives have been developed to help bring brownfields back into use (for example, Sumitomo Trust’s Eco-Land Fund, a contaminated land purchase and rehabilitation fund, operated by Green Earth Co., Ltd., based around a loan facility and the establishment of a real estate trust 33).

8.3 Comparing practice: Manchester and Osaka

Both Manchester and Osaka are third cities in their own countries with significant brownfield issues. The cities are founded on a rich and historic legacy of industrialisation stretching back over the last two centuries, and both share a common history through their previous emphasis on textiles and manufacturing. Osaka’s role as the ‘Manchester of the Orient’ has given way to a new focus as a knowledge-based city-region economy, but with manufacturing still an important industry base in the city. Manchester’s role in the north west region of the UK, and its key focus as an engine for economic growth in the wider Greater Manchester sub-region, have driven calls for its placement as a ‘city region’ within the UK, which it has recently secured.

Both cities also share a vision in terms of their ambitions to regenerate substantial parts of their urban land area through large-scale and comprehensive urban regeneration programmes, based around joint venture, or public-private, partnership models.

However, both Manchester and Osaka are cities in recession, with both property prices and regeneration activity facing severe constraints as the credit crunch hits national, regional and local economies, and as the effects of globalization re-enforce such impacts. In these circumstances the more marginal brownfield sites which require substantial clean up are increasingly under threat, as liquidity and confidence have fallen in the banking sector and consequently the property development and construction industries.

8.3.1 Attitudes towards brownfield regeneration and redevelopment

The majority of development land in Manchester is brownfield land and developers are used to developing such sites. Niche players have emerged but it is important to note that brownfield is just a part of the wider regeneration landscape in Manchester, which is focusing on place-making and projects which seek to increase demand in areas of low demand.

Osaka is starting from a relatively lower level of knowledge and understanding of brownfields and contamination given the more recent introduction of relevant legislation. Nonetheless awareness of soil contamination countermeasures has been gradually raised amongst real estate and development professionals since the launch of SCCA in 2002. In Japan, however, the concept of sustainable development has not yet widely recognised, in contrast to the UK where sustainable development is positioned as a part of key Government strategies for delivering urban regeneration programmes. Although the term ‘sustainable development’ is used in Japan, the terminology does not convey an explicit link between the reuse of previously developed land and the prevention of greenfield development, for example.

33 See section 2.3.2 of this report.
8.3.2 Contamination and other barriers to regeneration

Contamination, although important, is not the only issue when it comes to regenerating brownfield sites (which include hardcore sites) in Manchester. Low demand and a downward spiral in social and economic conditions in areas are difficult to reverse particularly in a recession. However, poor knowledge of tax relief on contaminated land was acting as a barrier and there were other issues of poor and under-resourced infrastructure acting as a further barrier. As regards the public sector, the convention of offering 250 year leaseholds might be less appealing than freehold or 999 year leasehold for new housing and DFA2 provisions may make homes relatively more costly for some purchasers.

Similarly in Osaka it was found that contamination, although recognised as one of the key barriers to redevelopment by developers, is not always seen as the biggest obstacle to brownfield re-use. Rather, fragmented ownerships and development control as well as lack of agreement with landowners were seen as acting as bigger barriers. In Japan, there is a marked lack of government-led incentives (e.g. tax relief, policy instruments) for developers to develop brownfield sites. Developers have to follow the same procedure in dealing with brownfield sites as they do with more ‘normal’ and less ‘problematic’ sites (i.e. greenfield sites). In addition, Osaka faces severe economic decline affected by the world-wide recession in 2008, despite the fact that the Japanese property market temporarily recovered in the second half of the noughties.

The main barriers to regeneration of such sites are summarised in Table 8.1.

Table 8.1 Main barriers to regeneration of brownfield sites in Manchester and Osaka

<table>
<thead>
<tr>
<th>Manchester</th>
<th>Osaka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Infrastructure</td>
<td>Fragmented ownership</td>
</tr>
<tr>
<td>Legal and regulatory</td>
<td>Development Control regulations</td>
</tr>
<tr>
<td>Lack of knowledge on tax relief and other incentives</td>
<td>Reaching agreement with landowners</td>
</tr>
<tr>
<td>Contamination</td>
<td>Lack of financial incentives</td>
</tr>
<tr>
<td></td>
<td>Contamination</td>
</tr>
</tbody>
</table>

8.3.3 Hardcore sites

Viability was being hit in the recession and so hardcore sites in particular in Manchester were suffering. Linking and merging such sites could lead to more advantageous outcomes and the public sector had a role to play here. The boom in prices had led to unrealistic expectations and some sites had changed hands at inflated prices which were now caught in the overhang of the recession. Even in areas which were perceived as having successful masterplans, varying site levels, fragmentation of ownership, contamination and other issues became more important when there was a market recession, often therefore making such schemes more ‘marginal’ in terms of potential success. This was a particular issue in East Manchester where old industrial buildings, different ground conditions and groundwater issues could make site assembly and remediation more complex. Some
developers saw the recession as offering opportunities to acquire sites at reduced prices.

The experience in Osaka is very similar. In the current recession, it is extremely difficult for financial institutions to make any lending decisions for brownfield redevelopment which have inherent risks. On the other hand, some developers see the decline of land prices as a new business opportunity and can acquire land at very low prices.

8.3.4 The role of the public sector in regeneration

The ‘Manchester model’ of regeneration, which is founded on a strong public-private partnership basis, was a vitally important part of the regeneration landscape in the city and beyond, and is seen by developers as one of the key advantages of doing business in Manchester. The NWDA was also seen as playing an important role. Developers suggested that the public sector needed to become more flexible and take a greater share of risk in the recession, however.

The Japanese public institutions which are promoting regeneration tend to put substantial emphasis on project profitability, and this has resulted in the sector being seen as replicating the role of private developers. In order to regenerate risky brownfield and hardcore sites which many developers are unwilling to undertake, it is essential to have strong support from the public sector. To justify and maximise the public sector’s support, it is necessary to clarify the social goals responding to a variety of public interests. Nevertheless, it is problematic to formulate a roadmap for regeneration since Japan lacks a national strategy or slogan for promoting urban regeneration in contrast to England.

8.3.5 Land and property markets and recession

The crisis in liquidity and confidence is hitting property markets hard in Manchester and making more marginal sites difficult, if not impossible, to bring back into use. Bank lending on contaminated sites could not be expected. Oversupply issues, driven by speculation during the boom, had fuelled the current crisis. The recession was also affecting remediation techniques carried out, with more standard techniques or less costly techniques holding sway. It was felt that the worst of the recession was still to be felt and that the existing skills base of regeneration had been depleted in the recession as staff were laid off. Some interviewees pointed out that regeneration was a long term process and that market cycles were inevitable. Riding out the storm would be difficult but there were also some advantages, with cheaper site assembly now possible.

As was seen earlier in this report, real estate prices in Japan had been falling since the bursting of the bubble economy in the 1990s. Despite a subsequent recovery the credit crunch of 2008 led to a further fall in real estate prices. In the current economic recession, it is extremely difficult to borrow money from any financial institutions for the development of high-risk land such as hardcore sites in Osaka, and regeneration of these high-risk sites has become much harder than before. In particular, contamination is considered to be a serious drawback and bank lending on such sites is difficult to achieve. In the next few years a large amount of new office space will be supplied in Osaka, but the demand for the office space will be comparatively low. In this situation new regeneration projects in Osaka may well not be feasible in the near future.
8.4 Policy implications and decision-making: beyond recession

8.4.1 Current and future policy and practice: what can be done?

In the Manchester interviews it was universally agreed that there were no ‘quick fixes’ for moving out of the recession. Increasing liquidity and confidence were the key to this, and currently hardcore brownfield sites were continuing to suffer continued vacancy and dereliction. No amount of gap funding could solve this critical issue. Increasing design and eco-standards were felt by some to be a potential barrier and the impact of the Community Infrastructure Levy (CIL) was seen as a further obstacle. Other barriers to regeneration could be removed relatively easily (including empty rates). Although Tax Increment Financing and Local Asset Backed Vehicles (and other tax incentives) were also mentioned as a possible measure to rekindle regeneration it was felt that the recession would continue to impact through reduced liquidity and confidence and until confidence returned, and the banks starting lending, that recovery would be slow. In summary the main policy implications of the research are:

- Help improve knowledge and understanding of tax relief and other related incentives for contaminated land;
- Reconsider the impact of the Community Infrastructure Levy;
- Further reform of empty rates is required; and,
- Consider ADZs and TIFs.

In Osaka the private developers who were interviewed suggested that there is a need to implement government policies based upon a long-term national vision for brownfield regeneration. Since local governments now face financial difficulties, it is not enough for the central government to simply unilaterally implement policies, and the central government really needs to encourage public-private partnerships much more than it has in the past.

We can perhaps also learn here from other research which has recently been published. For example, some cities have already responded to the recession with recovery plans (for example, London), and others have formed new alignments and collaborations with higher tiers of government (for example, Bilbao) (UCLG, 2009). A recent OECD LEED paper (OECD, 2009) identified 10 principles (‘Barcelona Principles’) to guide further action (Table 8.2). This suggests that in order to remain competitive, cities will need to develop along four frontiers, by creating:

- New economic strategies which promote differentiation, based on a city's unique assets;
- New investment strategies and tools which may no longer be based on conventional PPP models but on new private sector co-investment which are more adaptable and based on shared goals rather than a single transaction. This may also mean long-term joint ventures which are not simply based on land value uplift.
- New partnerships with higher tiers of government so that flexible and adaptive policies can be developed for city level recovery.
- A renewed focus on making public sector delivery more efficient, with a drive for improved service quality at lower costs.
Table 8.2 ‘Barcelona Principles’ for promoting city recovery and reinvestment (OECD, 2009)

<table>
<thead>
<tr>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>i  ‘Provide pro-active and collaborative leadership at the local level’</td>
</tr>
<tr>
<td>ii ‘Make the case for public investment’</td>
</tr>
<tr>
<td>iii ‘Robust long-term economic strategy’</td>
</tr>
<tr>
<td>iv ‘Purposeful short-term action’</td>
</tr>
<tr>
<td>v  ‘Investment attraction and readiness’</td>
</tr>
<tr>
<td>vi ‘Relationships matter and need increased attention’</td>
</tr>
<tr>
<td>vii ‘Effective public works and major investments’</td>
</tr>
<tr>
<td>viii ‘Stay close to the people’</td>
</tr>
<tr>
<td>ix  ‘Stay open to the world’</td>
</tr>
<tr>
<td>x  ‘Build national-local alliances’</td>
</tr>
</tbody>
</table>

It is clear that both Manchester and Osaka can learn from these principles as the cities start to move out of recession.

8.4.2 Getting the fundamentals right: critical success factors

There is a strong commonality between the critical success factors (CSFs) that can lead to successful regeneration of hardcore sites in both Manchester and Osaka. A summary is shown in Figure 8.1.

Figure 8.1 Critical Success Factors in Hardcore Brownfield Regeneration
In summary, the keys to success are:

- **Strong market**: for the regeneration to work there had to be a strong potential market for the product. Although the property market is subject to booms and slumps, ensuring long term demand for housing and other uses is essential. Location of a site becomes even more important when the market is a downturn and it is clear that more marginal sites face an uncertain future in the current market.

- **Seeing the recession as an opportunity**: in Osaka falling real estate prices have been seen as an opportunity for regeneration. It may also be the case that similar falls in Manchester may in due course help promote a more vibrant regeneration platform for 'opportunity funds', although depleted liquidity and confidence are key issues in both cities. In Japan some initiatives, such as Sumitomo Trust’s Eco-Land REIT, offer innovative ways of financing clean-up.

- **Long term vision**: despite the importance of market demand it was important not to lose the long term vision of regeneration. Successful schemes are the ones which continue to act as anchors for further development and regeneration in an area, despite market cycles.

- **Strong brand and individuality of product**: allied to the first two critical success factors it is important to ensure the regeneration product is individual enough to tap into effective demand and that a strong brand underpins this. In both Manchester and Osaka, ‘flagship’ projects have helped regenerate hardcore sites.

- **Partnership**: the Manchester model of regeneration has formed the basis for successful regeneration projects for many years and continues to underpin the ongoing regeneration projects in the City, despite the current recession. This private –public partnership model has enabled risk to be shared and for heavily contaminated sites to be cleaned up though the input of both sectors. In Osaka the most successful projects have involved the Urban Renaissance Agency (URA) which has partnered the private sector.

- **Linking sites in a coherent whole**: linking sites which require regeneration is more successful than simply a piecemeal approach. This is true of hardcore sites which are often relatively small in size. Regenerating isolated sites and relying on overheated market valuations has led to speculation and then recession, particularly in the housing market in Manchester. Projects which have linked anchors of activity are likely to be more successful. Larger ‘flagship’ projects which link sites have proved successful in both Manchester and Osaka.

- **Getting infrastructure in place**: community building and re-shaping is not just about a focus on brownfields in isolation: it is about bringing an improved social fabric back into a community, and so building social capital and ensuring infrastructure is in place is essential. In East Manchester some sites continue to lie derelict and vacant because they have become stigmatised not only through contamination, but also through lack of infrastructure investment. In a recession public funds and private funds are limited, so alternative methods of financing are required. In Osaka, land readjustment has also played an important role in adding value to sites.
The Emergency Urban Revitalization Zones in Osaka offer a taste of how Japan has tried to kickstart the regeneration process during a period which became known as the lost decade. Our interviews suggested that recent changes in political administration allied with the recession itself had made progress difficult. In Japan the designation of the Urban Revitalization Zones (URZ) was only limited to urban centres in large cities which had the potential for successful outcomes. Future application of such zones should therefore be extended to urban areas in more marginal locations. This type of site really needs central government support and can be benefited from the concept of URZ. Secondly, there is, in Japan a need for a better mechanism for the application of tax reliefs. Although many developers are familiar with the nature of tax reliefs (eligibility), the application is currently limited to funding for the construction phase of a development, for example.

In the UK, although such zones of exception have not been promoted there has been much debate over TIFs and empty rates. It is clear that empty rate relief need to be re-examined as empty rates are hitting regeneration projects. Moreover, TIFs (and Accelerated Development Zones) should also be examined in more detail in a UK context to determine their feasibility.

### 8.4.3 Improving decision-making

Alongside CSFs it is important that strategies are put in place in both cities to ensure that risk management and due diligence procedures are followed when brownfield sites are redeveloped. This is important for both national regeneration policies in both cities and in Osaka where foreign investment is very important. In terms of a generic process, English Partnerships’ Preparation, Options, Design and Delivery (PODD) toolkit is an exemplar which enables stakeholders to understand and place decision-making in context. This is shown in summary form in Figure 8.2.

**Figure 8.2 Preparation, Options, Design and Delivery (PODD) (adapted: LDA, 2009)**

![PODD Diagram](image-url)
In terms of ‘preparation’, each site should go through the four stages of inception, feasibility assessment (scoping the site and its potential uses and barriers, including contamination), and site assessment (including site specific information). As far as the ‘Options’ phase is concerned, this will involve an assessment of all options and selecting a preferred design, before the ‘Design’ phase, which comprises a detailed design identifying costs and risks, taking account of detailed regulatory and planning processes and the viability of legal, property and funding criteria. Finally, the ‘Delivery’ phase is designed to ensure that a full financial appraisal is carried out together with procurement and sales and marketing.

Again, however, in terms of inception, both data and information are key. England and Japan have some degree of limitation over data availability and coverage for the nature and extent of brownfields and contamination, but recent improvements in GIS technology have meant that in England the opportunity for spatial analysis of sites is much greater than before.

8.5 Conclusion

The research suggests that hardcore brownfield sites have been badly hit by the recent recession in both Manchester and Osaka. Despite this, not only can we find evidence that hardcore sites have been successfully regenerated in both cities, but also that the critical success factors operating in both cities for successful regeneration of such sites share a large degree of commonality.

The different approaches to brownfield regeneration in each city are best understood in the context of important differences in planning, sustainable development and environmental agendas in England and Japan. Moreover, the lost decade of Japan’s property recession after the 1992 peak offers important lessons for those countries (including England) seeking to underpin recovery in their property markets. During that period Japan’s response to the recession was to focus on urban redevelopment policy as a key platform for revitalising its large cities. UK policy could do well to learn from these lessons as the economy struggles to move out of recession.

Finally, both England and Japan would benefit from better data and information on brownfields and contamination. Whilst England has a relatively well-developed system in NLUD its limitations are well known. Japan still has no equivalent national system and both countries lack data on contaminated sites. Moreover both countries will need to re-examine their respective fiscal and legislative systems relating to brownfield urban regeneration during a period when public purses are severely limited.
References


NWRDA (2009) *Northwest Places*. Manchester. Regional Intelligence Unit: Warrington, UK


Office of Urban Revitalisation and Promotion (OURP) (2007a) Development Policy of West Section of Nakanoshima Island. (Accessed February 2010 from: ...)


Planning & Coordination Bureau, Osaka Municipal Government, (PCBO, 1999)  
OSAKA AND ITS TECHNOLOGY NO35, from:  


Appendix 1 Maps of Hardcore Land in Greater Manchester, Manchester Core and East Manchester

Greater Manchester
Core of Salford and Manchester

East Manchester
Appendix 2 NLUD Analysis

Ownership 2008

Ownership 2008 for sites registered since 2004

Ownership 2008 for sites registered since 1998

Proposed Use 2008

Proposed Use 2008 for sites registered since 2004

Proposed Use 2008 for sites registered since 1998
Appendix 3 Research Methods

A multiple method approach (Patton, 1990) was adopted for this research which comprised literature review, data and policy analysis, interviews and case studies. This enabled triangulation of results and also helped consolidate the comparative analysis at both a national and city level.

Interviews

The interviews in each city (17 in Manchester and 14 in Osaka) were selected on the basis of ‘purposive’ or ‘judgmental’ sampling procedures. This is because there are relatively few people available with the appropriate knowledge in the field (see also Binsted and Otsuka, 2010). In broad terms the interviews focused on government agencies; local authorities; developers; remediation experts and regeneration experts and other consultants (see Appendices 4 and 5).

The interviews were structured to a common format in both cities as far as possible. A combination of telephone and face-to-face interviews were conducted and all interviews were recorded and transcribed and then codified for subsequent analysis in order to identify common themes.

Case studies

Five case studies were selected in each city. This was on the basis of at least part of each relevant site falling into the ‘hardcore’ category (long term derelict and vacant with a contamination issue). The sites identified were also selected for the period encompassing 2000 to the present day (2009) in order to compare experiences before and during the recent recession. Information gained during the interviews also helped inform the final choice of case studies. The case studies and the project start dates are summarised below in Table a1.

Table a1 Summary of Case Studies and Project Start and Completion Dates

<table>
<thead>
<tr>
<th>Manchester</th>
<th>Osaka</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Street (2007- ongoing)</td>
<td>North Station, North District (2004 - ongoing)</td>
</tr>
<tr>
<td>Holt Town (undeveloped but with Masterplan)</td>
<td>Universal Studio Japan (1995 – 2001)</td>
</tr>
<tr>
<td>Jacksons Brickworks Site, Briscoe Lane (undeveloped)</td>
<td>Kaizuka Kitamachi (2008 - ongoing)</td>
</tr>
</tbody>
</table>
Appendix 4 Summary of UK Interviewees

Seventeen face to face and telephone interviews were carried out with the following:

- Two academic experts.
- Three government agency experts.
- One surveyor.
- Three local authority regeneration experts.
- Two remediation experts.
- Six developers.
Appendix 5 Summary of Japan Interviewees

14 face to face and telephone interviews were carried out with the following:

- 2 government agency experts.
- 5 local authority regeneration experts.
- 2 development and construction industry experts
- 1 design and Planning Consultant
- 1 remediation expert.
- 3 developers.