

Chapter 2

Stakeholders through the development process.

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2.0 Introduction

Chapter 1 introduced the concepts of sustainability and sustainable development and concluded that these are contested terms capable of widely differing interpretations depending on the perspective of the individual or organisation. The notion of sustainability, although only embraced widely in the last 30 years, is not new. Ruskin argued in 1849 that:

“the idea of self denial for the sake of posterity, of practising present economy for the sake of debtors yet unborn, of planting forests that our descendants may live under their shade, or of raising cities for future generations to inhabit, never, I suppose, efficiently takes place among publicly recognised motives of exertion. Yet these are, none the less our duties; nor is our part fitly sustained upon the earth, unless the range of our intended and deliberate usefulness include, not only the companions but the successors of our pilgrimage.” (Ruskin, 1849:171).

To Ruskin, the need to consider future generations was a duty, but to others it is not a matter of responsibility and duty to those who come after us - it is a current risk. Certainly the climate change agenda has been expressed not just as a future environmental impact but, as concluded by Stern (2006), a current economic imperative and a risk mitigation matter. Many companies who have developed Corporate Social Responsibility policies, see sustainability in social and economic terms as well as environmental; to them it is about good business sense, brand recognition and reputation (Sustainable Construction Task Force, 2000).

Within the built environment the sustainability agenda has developed in two, initially discrete ways. On one side, fuelled by government-led positions, the *supply-side* of the industry has been in a ‘push’ position with regulatory frameworks developing, partly due to a lack of perceived movement among *demand-side* players. More recently, the demand-side has moved forward and the fracture between these interests, as elegantly expressed in the so-called ‘Circle of Blame’ (see figure 2.1) has been argued to be converging into a virtuous circle (see figure 2.2).

Figure 2.1 The Circle of Blame (Source: Cadman, 2000).

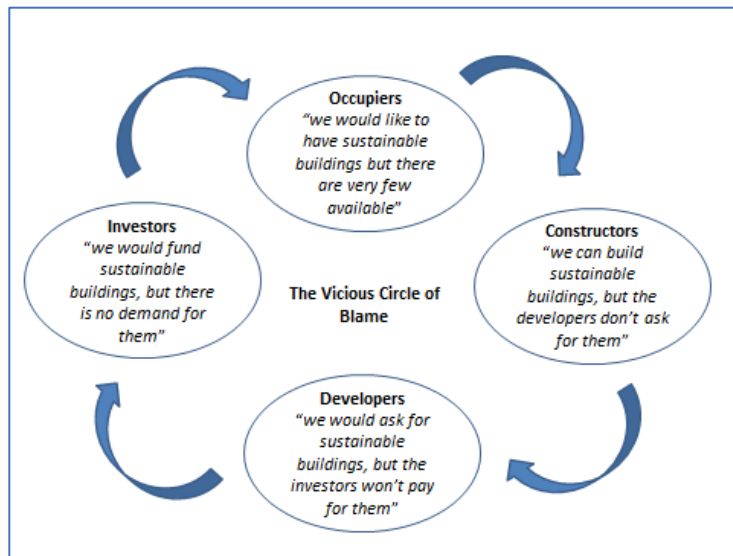
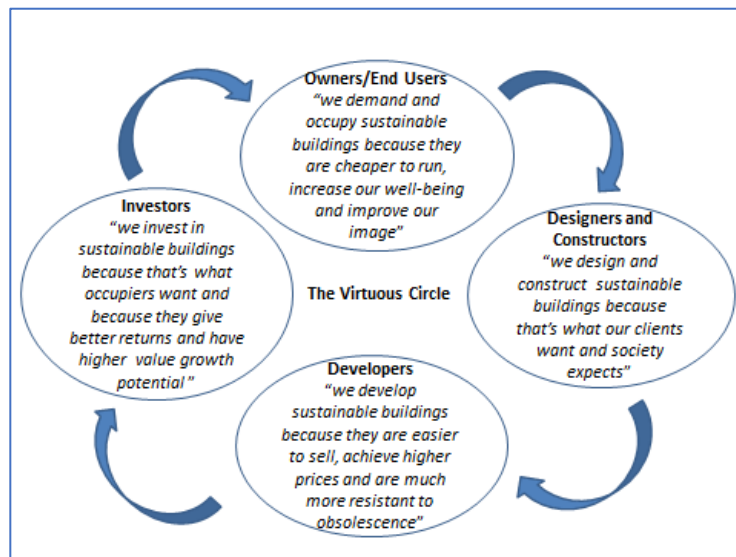


Figure 2.2 The Virtuous Circle (Source: Hartenberger, 2008).



Whether such convergence has actually taken place is not the direct argument of this chapter; what is explored are the differing types of stakeholders in the development of the built environment, all of whom have a direct influence on whether the buildings that are achieved are ones that not only fulfil today's occupiers needs but, in so far as we can predict, will continue to serve a useful purpose moving forward and not place unnecessary pressures on the environment.

In addition to the plethora of stakeholders, what has to be recognised is that, depending on the power relationships and cultural context, the influences brought to bear at each moment of decision-making throughout the development process will vary and influence the outcome. For example, at times of weak occupational demand, the perspective tenants' view will hold greater sway than when demand is high. Further the influence of banks and institutions that control the flow of funding will be critical: if they require, as a matter of routine, sustainability appraisals for the buildings on which they propose to secure loans, it will shift behaviours. If they do not, opportunities to drive towards sustainable development will be lost. It is therefore vital that stakeholder positions are understood and that they are provided with the knowledge, motivation and influence to support ambitions they may hold towards their own sustainability objectives.

2.1. Stakeholders.

With each stage of the development process there are numerous significant stakeholders. Though each stakeholder adds to the outcome of the process they may have very different viewpoints and expectations; the developer is required to manage the miscellaneous and possibly contradictory objectives of all stakeholders. The significance of the stakeholders fluctuates from project to project and not all feature in every project. Further some stakeholders are transient, for example most consultants and indeed many developers; others have an ongoing interest. Further, although many stakeholders will have a financial interest (we call these internal stakeholders) many do not. External stakeholders, such as visitors to a shopping centre can also exert significant influence, notably on redevelopment decisions (Walker *et al.* 2004).

2.1.1 Public sector and government agencies

In many countries the public sector and government agencies are the most important developers and, in the wake of the global downturn earlier this century, public sector led construction activity is proving crucial in stimulating economics. However much depends on the political persuasion of the government. Currently, the US public sector is undertaking little direct development currently as a result of their neo-liberal perspective; however the UK, whilst it has shifted away from a direct development role in recent years, preferring to enter into public/private partnering arrangements (Dubben and Williams, 2009) is nonetheless not only a powerful stakeholder but, in their role as occupier and funder of private initiatives, an important influencer of markets. Within the UK, there is now a major commitment to public infrastructure development in the form of rail, air and flood management. In other countries responses differ. For example, in Australia a National Stimulus Plan in the education sector refurbishing and

building schools was instigated by the Labour government, aimed to keep some momentum going in the economy as the Global Financial Crisis took hold.

At the sub-national level, local authorities typically develop for their own occupation or community (such as housing) use and, to provide local infrastructure schemes but globally they are often limited by financial resources and their legal powers and requirements to be accountable to their communities. Involvement in development is contingent on whether they want to support or restrict development. Some authorities carry out economic development to promote investment in their area; with more proactive authorities stimulating the process by sometimes supplying land and buildings. Authorities are often owners; maintaining a long-term interest, holding the freehold of developments and signing over long leasehold interests to developers, sharing in rental growth through the ground rent. This has been a prevalent feature of many town centre schemes, in which public ownership provides an assurance of civic society protection. Whatever the level of activity the public sector undertakes as direct developer, the key aim of their policies and strategies aim will almost always be consistent with the ambition of long-term sustainability. In making their decisions, the tools used, which include for example Cost Benefit Analyses, are more to take account of *all* stakeholders, internal and external, than private sector developers. This last statement however does not necessarily apply to sovereign wealth funds set up by wealthy nations for the purpose of economic gain and long term financial stability. The majority of these funds have been formed within the last 15 years (Lipsky, 2008) and are estimated currently to control some \$6.3 trillion worth of assets (<http://www.swfinstitute.org/fund-rankings>), 14% of which is estimated by McKinseys to be invested in real estate, excluding infrastructure (<http://voices.mckinseysociety.com/sovereign-wealth-funds>). They tend to act in line with private sector developers and institutions.

For governments, public sector and policy agencies to act as effective drivers of sustainable development, they require both good advice and deep internal knowledge. In many authorities this may exist and certainly many governments worldwide are investing heavily in capacity building and knowledge creation. However for this to be *effective* they also require knowledge of the development industry, something that Adams *et al.* (2012) from an empirical longitudinal study in Scotland saw to be lacking. In their research they found only limited understanding of what drives the development process or motivates individual developers; yet this, they considered to be a prerequisite to effective urban policy-making.

2.1.2 Planners

Planning systems were largely established in developed countries during the mid-20th century. The UK planning system has existed in comprehensive form since 1947 and is the major regulator of property development (see Chapter 6). Depending on the jurisdiction it can be nationally or locally led; often it is a combination of two or more tiers of administrative control in both policy-making and practice implementation. Planners can be divided into public sector policy makers/development managers and external private sector consultants (see section 2.1.6b). The development managers who are regulators, are liable to approve plans brought forward in compliance with government approved local plans, the role of planners is in reality ambiguous as in many cases decisions are not undertaken by the professionals but by elected local authority politicians, acting in the light of advice provided by their planners. Recent research within the UK (Green Construction Board, forthcoming), points to the role of planning as a ‘negotiated hurdle’ in which a process of consultation, often including community groups as well as reports from a wide variety of experts, feeds into the ultimate decision.

Ultimately, most planning systems aim to encourage desirable development with the guidance for determining applications set out in statute and policy guidance notes. Again to quote the UK, the National Planning Policy Framework (DCLG, 2012) states that “*the purpose of the planning system is to contribute to the achievement of sustainable development*” taking five guiding principles:

- *living within the planet’s environmental limits;*
- *ensuring a strong, healthy and just society;*
- *achieving a sustainable economy;*
- *promoting good governance; and*
- *using sound science responsibly* (DCLG, 2012: 2).

Whilst other countries have differing systems, in most developed nations aim of planning is to balance the desires of individuals with the deemed best interests of society – both for the present and into the future. Decisions, in theory, in relation to any individual application are made in the context of development plans, written government policy and advice, previous decisions and the application itself. However, such matters are frequently not straightforward and developers often engage planning consultants to advise them in negotiations prior to the application being made; hence the view that planning is a negotiated process – not an absolute one.

A modern feature of the UK planning system is the use of planning agreements and local taxation measures (Community Infrastructure Levy) to offset perceived externalities of the development or support provision of community facilities off site. Where tight public spending controls exist the use of such devices is a way to ensure that the external costs of the development begin to be borne by those who stand to gain financially from the scheme. In this way there begins to be a balance towards social goal achievement against economic gain and environment costs.

2.1.3 Owners

As Adams and Tiesdell (2012) argue, landowners may play an active or passive role within the decision to develop and indeed the development process. Owners may actively initiate sustainable property development when they wish to sell and/or improve their land; conversely if they do not initiate the process, they become a barrier to development. Without a willingness to sell their interest or partake in the project (unless compulsory purchase powers are used), no development can take place. Also the owner's motivation may affect their decision to release land for development, and this follows whether they are individuals, corporations, public bodies or charities, a point made strongly by Goodchild and Munton (1985). Further owners may take on the role of the developer, in total or in part. A classification of owners into traditional, industrial or financial produced in 1979 (Massey and Catalano, 1978) remains valid today, although the balance of assets has changed, with the role of the financial institutions and other investors playing a critical role. Notwithstanding this, owner-occupiers still account for some 50+% of commercial property and significantly more in the residential sector.

In the UK the church, landed aristocracy and gentry, and the Crown Estate are regarded as 'traditional' owners and have significant amounts of land area and capital value. Similar institutions exist in other countries. A distinguishing attribute is that they are not being entirely motivated by the economic imperative; which is potentially beneficial in sustainability terms. Overall their purposes for ownership are broader than return on capital and involve environmental, social, political and ideological issues.

Conventionally financial owners see their proprietorship as an investment and participate if the return on their land is economically optimal. These owners have economic drivers and are often knowledgeable about land values and development or employ consultants with real estate skills. The main group are financial institutions such as insurance companies and pension funds, which hold substantial amounts of land by capital value and invest heavily in property investment. Financial institutions develop directly or with property developers. Furthermore major property companies own substantial portfolios of properties and carry out development. To these more recently can be added a growing number of high net worth individuals (HNWIs) who share the characteristics of requiring financial gain at acceptable risk but who act in ways that could be regarded as maverick as they do not tend to follow the established investment theory driven norms of the institutions. It is this collective group (the financial investors) to whom the notion of sustainable development has been seen as problematic. Driven by the requirement to produce optimal financial gains, they need to see a business case in order to incorporate 'beyond compliance' sustainability features. However, as explored in later chapters, such evidence is increasingly forthcoming (World Green Building Council, 2013)

Finally, industrial owners (perhaps now rather a misleading name) hold land for reasons related to their main purpose, some manner of service provision or production. This group includes retailers, manufacturers, industrialists, farmers, extractive industries and service industries. Public authorities that own land might be included in this group. This group are restricted and affected in their mind-set to land by their primary cause of their being - their product. Other constraints may be their legal status that may mean they will not always wish to maximise economic returns on land or property as that may be subservient to their key aim. As a developer group their incentive will be driven primarily by function and form but increasingly, the requirement to produce a financial advantage over renting space may be a key consideration. Therefore as a development stakeholder they tend to operate only where the building they require is unobtainable to purchase as existing stock (for example a specialist production function) or where there are reasons of prestige of brands that encourage the them to develop for their own occupation. Where this is the case, there is ever possibility, with the embedding of social responsibility policies into corporate missions sustainability will be a key requirement of the specification.

Owners impact considerably on the spatial layout and the type of development constructed; especially in respect of sustainability. Planning regulations may reduce the impact they are able to have on the type of development, but as this is a negotiated process, they have influence over the design as well as location and specification of the development.

2.1.4 Developers

In the private sector, development companies can range from trans-national companies employing thousands of people to single person operations. They may operate primarily either as traders or investor-developers. For the majority their purpose is to make a direct economic profit from the development, although the large organisations will tend to have well developed CSR policies. For example, Land Securities in their commercial one million square foot development at Victoria London, are working closely with Westminster City Council to find ways in which the development can assist with solutions to some of the area's most pressing social issues: homelessness, unemployment and opportunities for young people as a result of which they have set up long term partnerships with homelessness charities and local schools which will include volunteering, job shadowing and contributions to affordable housing schemes; they have also set up an endowment model to award grants to a number of local charities and projects. (<http://www.landsecurities.com/responsibility/news-case-studies/case-studies?id=53>).

Although it is fairly self-evident that the big investor-developers have a strong business case to engage with their local communities to underscore underlying confidence and values within areas, there is some evidence that developers, even where they may be developing for trading are changing in their approach away from a totally single bottom line profit approach. Partly this will be in response to stronger planning and building codes; partly it is a shift in approach. For example, in a survey of Australian

developers, Taylor *et al.* (2012) found that, in relation to climate change issues, developers and their interest groups are seeking greater levels of participation and joint decision-making in public-adaptation policy and its implementation.

Most small developers have to sell the properties they develop because they do not have the capital to retain completed schemes; that is their business model and in most countries is taxed as such. Some larger publicly listed developers trade some of their developments to capitalise on rising rents and values whilst retaining others within an investment portfolio. Trader developers tend to use debt finance obtained from the banking sector to be repaid when they dispose of completed assets. Whilst such a position can be advantageous during periods of growth, it can lead to excessive borrowing and vulnerability when economic downturns occur because limited assets are inadequate to continue trading.

Developers will turn to bank finance where institutional funding (see below) is not available either due to the type of development or if the developer is either not prepared or unable to provide the required guarantees. Another option is to use debt finance in a period of rising rents and values to maximise the potential profit on completion. There are many means of obtaining finance from the banks for short- and medium-term finance, although this has been restricted following the Global Financial Crisis of the late 2000s. The banks make a financial profit from lending money. Banks lend against a particular development or lend to the development company; using the property assets of the company or the property as security for the loan. Property is attractive as security as it is a large tangible asset with resale value. Banks wish to ensure that the proposed development is well located, the developer is able to deliver the project and the scheme is feasible. Where corporate lending is concerned, the bank reviews the strength of the company, in particular assets, profits and cash-flow. Where a bank is exposed to above normal risk, they may secure an equity stake in the scheme.

The alternative to debt funding from banks is to work with those who will become the long-term investor, through arrangement of pre-sale deals. This reduces their risk and may encourage designs which are better 'future-proofed' in sustainability terms. However such funders have very specific requirements in terms of what is 'institutionally acceptable'.

Many trader-developers aspire to become investor-developers; where profits are used for investment. Some large companies undertake little new development; managing their portfolio with increasing emphasis on retrofitting and redevelopments. In the residential sector, developers operate mostly as traders as the market is dominated by owner occupation, however during the development process many are owners of large tracts of land. Further when economic gains through the land conversion process are compromised due to uncertain demand for the finished product, developers can deliberately 'land bank' holding back land for development until such time as a developed land supply shortage starts to create 'value push'. Although this is sometimes viewed by governments as an unacceptable tactical position, the reality, as discussed later in the book, is that the value of land is a product of the value of the completed development – not the other way round.

It also follows that the kind of development undertaken varies considerably. For example some companies will specialise in a particular type of development, such as offices or retail, and also in particular geographical locations; whilst others prefer to spread their risk across types and locations and countries. Some remain in a specialist type of development but cover a wide geographical, even international area. Property companies formulate their policy according to the interest and expertise of their directors and their perception of the prevailing market conditions. Unless they are investor-developers, they may have little fundamental incentive to prioritise sustainability unless there is a proven financial case so to do. In the past this did not exist; now in some sub-markets it may. In terms of the knowledge base, in a study of Malaysian property developers, Zainul Abidin (2010) found that, whilst some did have a good level of knowledge of sustainable construction, many did not, particularly those within small and medium sized companies. Further their knowledge was limited to environmental issues, with little cognisance of social matters such as health and well-being concerns. Whilst Malaysia is still often regarded as a developing country and doubtless the situation has moved on slightly since this work was undertaken, the level of interest in sustainable development is high and the situation is believed to be similar in many other countries.

2.1.5 Financial institutions

Financial institutions, as sources of finance, have a vital role in the process unless a development is being financed wholly with the developer's own capital or that of a partner. The term usually describes superannuation or pension funds and insurance companies but also includes specialist property investors such as REITS (Real Estate Investment Trusts) and other financial vehicles. Nevertheless, there are many other financial institutions for example clearing and merchant banks (both UK and international), and building societies that finance development, as detailed above.

Financial institutions (pension funds and insurance companies) are motivated by their requirement to meet their fiduciary responsibilities to their stakeholders. Normally this means the pursuit of financial gain at levels of risk that are acceptable given their status. Property is but one of a range of investments and may represent only 5–10% of their full investment portfolio, if that. Unlike most developers, they take a long-term view advised by actuarial calculations in order that their assets and liabilities match. Whilst at times this favours real estate development, more stringent liability modelling and a move from a requirement to invest in growth products for future pensioners, have seen moves towards income performance. Although superannuation, pension, life and investment funds are in theory long-term holders, their managers are assessed on their short-term performance with respect to other forms of investment and to the returns they realise against rival funds, which promotes a short-term approach which may not favour sustainability, but others do recognise its significance (Newell, 2008).

Institutions can offer short and long-term finance to developers through forward-funding where they agree to purchase the development on completion whilst providing finance. Typically almost all risk is transferred to the developer who usually provides a financial guarantee. Otherwise, institutions may act as developers to create an investment: they bear all the risk but do not have to share any profit. Some purchase completed and let developments only as they see development as too risky.

Whether acting as developer, financier or investor, institutions adopt conservative and largely homogenous policies which typically seek a balanced portfolio of property types, although some investment houses have specialist funds geared towards particular types of opportunities. For example, Igloo, part of the Aviva group, was an early specialist fund seeking regeneration and sustainability opportunities. Furthermore most try for a good geographical spread of investments. They look for properties or developments that fit their specific criteria in terms of location, quality of building and tenant covenant (financial strength). As developers often rely on borrowed funds and have a requirement to be able to sell the eventual scheme they will need to take account of the requirements of financial institutions' requirements in preference to those of users, where the two are in conflict. However, as the drivers for the financial institutions if they wish to buy property with the broadest tenant appeal in uncertain markets, there should be convergence between requirements, especially in markets where short leases prevail. However, some marketing advisers may take a cautious view and propose very high specification in the belief that it will lead to great lettable. Unfortunately sometimes this can lead to over specified, and ergo less sustainable, buildings (Cook and English, 1997; van de Wetering and Wyatt, 2011). Where they do consider the longer-term they can be very sensitive to demand led factors; further most of the large institutional investors and investment management houses now have highly developed responsible investment policies. Over the last ten years since the publication of a seminal paper by Pivo and MacNamara (2005) they have begun to link this agenda with their property stance.

In the residential sector developers build housing for owner-occupation, normally utilising short-term bank finance, with their capacity to secure finance based on track record and the value of the development.

In the public sector, the sources for residential development are comparable though more challenging to obtain especially post the financial crisis, with very tight central government controls on public sector borrowing operating in most developed economies. Some authorities may obtain funding through grants for urban regeneration projects in specific geographic areas, from central government sources. In the European Union so called European Structural Funds have provided funding previously. However, access to funding is often competitive and sometimes targeted at schemes where partnerships between the community and the private sector exist. Developers may acquire economic support from government agencies in the shape of grants, rental guarantees and equity participation through the provision of land, though they have to prove that the project would not proceed without such assistance and that jobs will be created in the local community. For these reasons, at least in the UK, public sector engagement in the

residential sector has almost ceased, with a shift towards third sector providers, many of whom are now entering into partnerships with private sector developers, either by choice or through planning requirements to integrate 'affordable' or 'social' housing within schemes. At best such arrangements enable a deepening dialogue between different types of organisations which can lead to more inclusive sustainable design; at worst it is a recipe for an uncomfortable alignment of two tier stock.

2.1.6 Producers

a) Construction firms

The conventional model is for the developer to contract with a construction firm and possibly, through them, a range of sub-contractors, to build the development. This model leads to the potential for disputes as each party pursues their own financial objectives, and any over-arching ambition towards sustainability can be jeopardised as a result. Larger firms with the relevant expertise can act as a management contractor and oversee all the sub-contracts for the developer for a fee to minimise risk to the client. Although some firms are now developing an ethic for sustainability and expertise in sustainable construction methods where the supply chain is fragmented such ethic may become diluted or lost. Nonetheless, the impact of disputes is a major issue within the construction industry leading to time and financial loss (E.C. Harris, 2013).

However, this is not the only model and many contractual systems for procuring property exist (see Chapter 8). In some cases developers employ their own contractors whilst larger residential developers or house-builders lean towards in-house expertise. Other, normally commercial, organisations have a contracting division as an independent profit-making centre. Another widely-used model is design and build, under which combined control over design and construction aims to reduce the inter-organisational arguments and miscommunications which can increase cost and time and impact negatively on quality (Ng and Price, 2010). Whatever model is adopted, a major determinant will be the type of development and the attitude towards risk, notably the liability for any cost increases. Construction firms, such as house builders, which act as developers, assume the added risks related to development. When a builder is engaged as a contractor alone the economic profit is related to building cost and the length of contract but where the construction firm is the developer, a larger profit is needed because of the risk.

Construction firms perform a specialist activity within the process, starting when there is maximum developer commitment and risk. A wise developer will vet thoroughly the ability of the construction firms to deliver the development, looking for the optimum balance between time, cost and quality. It is in neither the developer's nor construction firm's interest to create circumstances where the construction firm is unable to obtain a reasonable profit. It is not in the developer's interest for the construction firm to compromise on quality or to go into liquidation; too frequently this happens.

Public Private Partnerships (PPPs) cover a wide range of different types of contractual and collaborative partnerships, such as the Private Finance Initiative (PFI), the introduction of private sector ownership into state-owned businesses, the sale of Government services into wider markets and the generation of commercial activities from public sector assets through, for example, the Wider Markets Initiative. Over two decades they have become a vital part of many governments' strategies, including the UK, to deliver public infrastructure or buildings such as hospitals and schools. Generally all PPPs have three objectives:

- to deliver significantly improved public services, by contributing to increases in the quality and quantity of investment;
- to release the full potential of public sector assets to provide value for the taxpayer and wider benefits for the economy; and
- to allow stakeholders such as taxpayers and employees to receive an equitable share of the benefits of the PPP.

Thus PPPs bring together a public body and a private company in a long-term (normally 30 + years) joint venture for the delivery of high quality public services for mutual benefit after which the facility reverts to the public sector. In theory therefore both parties are in the arrangement for the long-term which should promote the inclusion of sustainability characteristics in the specification.

The original thinking behind PPP was that the public sector cannot always deliver major investment projects and the private sector could bring perceived benefits such as increased efficiency and innovation, a motivation to invest in high-quality assets to optimise maintenance and running costs, and finally; improved management of the risks in delivering complex investment projects within time cost and quality constraints. PPPs provide additional resources for investment in public sectors and the efficient management of the investment although the benefits have been widely questioned on both cost and quality grounds (see for example, Akintola *et al.* 2003; Bennett and Ioassa, 2006). Further, Hamilton and Holcomb (2013) argue that, despite many undoubted successes of PPPs in promoting sustainable development many international operators are not motivated to make investments in developing regions where the need for social services is greatest.

Thus development is complex and most developers have neither the skills nor expertise to undertake a major development without interfacing with other expertise. Consequently, developers employ different professionals to advise them at different stages of the process depending on their needs in this way other stakeholders can also influence the degree and extent of sustainability included or omitted from projects. These interactions can result in obscurity as to who in the final analysis makes the decision about the final specification of a building, including the approach to sustainability (Green Construction Board, forthcoming).

(b) Planning Consultants

Planning consultants, acting on behalf of developers or landowners, negotiate with local authorities to obtain the most valuable permission for a development. Where an application is rejected they can act as expert witness to make the case for the developer. In addition planning consultants advise owners to safeguard that their sites are allocated within the development plan to their most valuable or appropriate use. They may negotiate with the local planning authority at plan preparation stage or make representations at an enquiry into the development plan. In this role they can be significant initiators of the process. They can have an impact on urban sustainability in terms of issues such as transport and proximity of residential developments to services such as retail, health, educational, commercial and employment. Whilst they have a contractual obligation to work for their clients, they also have an ethical duty to act in the public interest which now might include an obligation to advise clients as to the implications for sustainability of their proposals. In preparing planning applications, consultants frequently have to employ specialists, such as ecological or sustainability experts to carry out biodiversity or other impact assessments, which can have a negative impact on costs and time.

(c) Architects

Developers employ architects to design the form and construction of new buildings or the adaptation of existing buildings; as such they can have a substantial effect on the design and operational sustainability of the development. Architects sometimes administer building contracts on behalf of the developer and certify completion of the works. In the case of adaptation, building surveyors are employed to survey the existing property, advise on alterations and provide contract administration services. Where a planning consultant is not used, architects will obtain planning permission for new builds, whereas with an adaptation the building surveyor will perform this task. They are paid on a fee basis, typically a percentage of the total building contract sum.

The architect is appointed usually at the beginning of a project to ensure all design work is completed when construction begins. Developers look for appropriate experience, reputation, resources and track record as well as the right balance of skills to generate fine architecture that is cost-effective and attractive to users. As this balance is hard to deliver, it is vital for developers to provide a clear brief as issues arise when there is a lack of communication between developer and architect.

Some architects offer project management, engineering and interior design services however, though this may be effectual on some projects, most developers prefer to compile their own professional team. Finally some developers employ architects and design professionals directly. Architects often are highly skilled in relation to some aspects of sustainability but may take a techno-centric approach to the design at the expense of wider considerations. One such debate is whether sustainable development is better served by the construction of massive structure with high embodied energy but with the ability to retain

heating /cooling over lengthy periods and designed for long life, or lightweight flexible structures which have lower embodied energy but may need efficient cooling and heating systems.

(d) Valuation Surveyors

Valuation surveyors or property economic consultants produce a detailed analysis of the market in terms of supply and demand at the evaluation stage. This information allows the developer to determine the profitability and risks associated with the proposed project. Many financiers, especially the institutions, insist on market analysis when evaluating funding proposals and within the UK, some lenders now require specific mention of sustainability within the valuation report. A major recent review of the business case for going green (World Green Building Council, 2013) has shown increasing evidence that within commercial property developments in large city centre locations, sustainability certified buildings may command value differentials over those designed to less sustainable standards. Valuers have been criticized for a lack of awareness and knowledge of sustainability matters (Warren-Myers, 2011). This is beginning to change, and a requirement to consider the implications of sustainability within valuations is now explicit within the RICS's global standards to which all their registered valuers must adhere (RICS, 2014: VPS 4 p: 60).

(e) Construction Economists or Quantity Surveyors

Construction economists or quantity surveyors (Qs) advise the developer on the probable costs of the total building contract and related costs. Their responsibilities can include costing the architects designs, tendering the building contract, advising on the form of building contract (procurement), monitoring construction and approving stage payments to the contractor. Qs frequently manage the administration of design and build contracts, where their fee is based on a percentage of the final contract sum. As with the architect, the selection of the QS should be centred on experience and reputation. Furthermore the developer should appoint Qs who works well with architects and other professional team members to deliver cost-effective designs. The QS should be able to offer cost effective alternatives to those proposed by the architect. With issues around perceptions (if not a reality) of increased costs of developing property sustainably the QS has a key role in suggesting and facilitating cost effective sustainability solutions for developers, for example using a Life-Cycle Approach (LCA) to evaluate different options in the design and specification. It is therefore important that they develop skills in terms of methods of evaluating sustainability such as LCA.

(f) Engineers

Structural engineers advise on the design of structural components to ensure the stability of the building and they may contribute to supervision of the structural construction; their knowledge of materials' strength, longevity and environmental impacts can influence the final sustainability rating of a building. Civil engineers are engaged where major infrastructure works and/or groundwork is part of the project. On larger or complicated projects mechanical and electrical engineers design the building services and can have a significant impact of the sustainability of the design and operational phase of the development but in designing buildings it is critical that they do have a clear understanding of how a building will be occupied or their systems designed to minimise energy use, may simply not work. There is an increasing recognition that sustainability knowledge is necessary component of the future engineering skill base. Engineers are usually paid a percentage fee based on the value of their element of the building contract.

(g) Project Managers

Project Managers (PMs) manage the professional team and the contract for the developer; and are particularly engaged for complex or large-scale projects. Typically they have been educated and trained as architects, engineers or surveyors prior to becoming projects managers; this initial training and education often influences their style of project management. Developers can act as a PM or they can appoint another member of the professional team to fulfil this role. PMs should be appointed before any of the professional team or the contractor so that they can counsel the developer on the best team for the scheme; as such they are in a position to influence the scope and extent of sustainability. Although their fees are often a percentage of the building contract sum, they can be incentive based for delivering the project on cost and on time. Developers can fulfil the PM role for building users who wish to engage a developer in constructing their own premises.

(h) Solicitors

The services of solicitors are required at several points in the process, from the purchase of the site to the preparation of leases and contracts of sale. Furthermore they negotiate legal agreements covering funding arrangements entered into by the developer. When a developer appeals a planning application, solicitors and barristers may represent the developer. Where collateral warranties are demanded by purchaser's solicitors prepare the documentation. Collateral warranties are agreements under which parties with contractual obligations, in connection with construction or operation of a project, accept liability to the lenders for their performance. With the growth of interest in so-called 'green leases' and the recognition that the owner/occupier interface is critical in promoting sustainability, Brooks (2008) argues that "*lawyers are on the front lines of lease negotiation, and can lead change*". However, to date there is little evidence that, with some notable exception, their knowledge base has so widened with the exception of some vanguard experts (Sayce *et al.* 2009).

(i) Accountants and financial advisors

On occasion specialist accountants advise on the complexity of tax and, in the UK, VAT regulations that can have a major cost impact on a project. They may advise on the structure of partnership or financing arrangements. Accountants are not likely to have much impact on the sustainability of the development directly, unless tax advantages exist which benefit developers through the implementation of various sustainability measures. Regretfully, even where tax breaks do exist which can support sustainability objectives these are not necessarily promoted by financial advisors.

The description of the professionals and specialists above do not completely cover the full range of professional expertise that is engaged in property development or indeed their roles in respect of sustainability within the process. There are many other specialists who may be needed depending on the project and its complexity. Other appropriate professionals may comprise of land surveyors, soil specialists, archaeologists, public relations consultants, highway engineers, landscape architects, and marketing consultants.

2.1.7 Marketeers - Agents

Real estate agents often exert influence right at the start of the development process by bringing together stakeholders; their skills lie in understanding rental and capital markets and interpreting them. They tend to operate through strong networks of personal contacts among stakeholder groups and are therefore well placed to connect the developer and the end user, unless the developer employs in-house staff to perform this role.

Agents obtain direct financial profit from their fees charged to their client (developer or user). They may play a key role in initiating the development by sourcing a site or advising a landowner to sell a site on account of its development potential. In this way they indirectly influence sustainability. Unless they are retained to find sites for a particular use, agents identify sites for developers. The agent negotiates for the developer and advises on matters relating to feasibility. Agents may receive a fee for finding the site that is often a percentage of the purchase price. Furthermore if the purchase proceeds, they may be appointed to let the development or secure funding for the scheme. When an agent acts for an owner they may provide professional advice on estimated land value and the likely market for the site; however whether they can provide value advice will depend on the jurisdiction in which they operate. They therefore have a critical role in understanding how sustainability characteristics are impacting on the demand side, which in turn can feed back into development decisions.

Frequently agents are not brought in at the concept stage and are only engaged as letting or selling agents. In this case they may be too late to really influence the depth and breadth of sustainability incorporated in the design; it is therefore preferable that they be appointed from the early stages; it is also important that they develop a real understanding of the complexities surrounding sustainability rather than a superficial knowledge of accreditation and rating schemes. We return to this later in the book.

2.1.8 Consultees

Within most developed countries' planning systems, consultation with external stakeholders is a critical part of the pre-construction process. Such Consultees may be statutory (i.e. prescribed in law) or they can be members of organisations or indeed individuals who wish to express views. Within the UK there are five principal statutory Consultees for major schemes. They are English Heritage, the Environment Agency, the Health and Safety Executive, the Highways Agency and Natural England, all of whom have informed voices in terms of sustainability, either social or environmental.

Whereas, many Consultees will be supportive and offer constructive and useful suggestions, others may object, leading to possible delay and in some cases abandonment of proposed developments. They might comprise self-interested neighbours and as such are often labelled 'NIMBYS' ('not in my back yard'). As such they can have the potential for negative or positive impacts with regards to sustainability; but where there is a drive for development at almost any cost they can provide an essential counter-balance.

Objectors include some well-organised professional, permanent bodies at local and national level. At local level they include amenity societies who consider every proposal affecting local environment and heritage, for example, the Victorian and Georgian societies, the Society for the Protection of Ancient Buildings (SPAB) and the National Trust. They have influence with local planning authorities and are referred to on major applications; they also express views at the policy level.

Of most significance to sustainability are the environmental activists who emerged in the 1990s, usually focused on substantial projects. A good example of environmental protest is the Chinese Three Gorges Project. Protest can be direct such as occupation or passive for example letter writing or petitioning to administrators. It is anticipated that environmental protests are likely to increase in scale over time as the evidence of environmental degradation increases and the impact of manmade climate change becomes more evident. However it is not just at the development phase that objectors make a difference to the type of buildings that get commissioned. As they gain power and influence over matters as diverse as energy policy and corporate responsibility, so they begin to impact on the actions and policies of those who will become the ultimate building occupiers and owners – and on the government level policy makers.

Developers, therefore, should be cognisant of potential objector/supporter groups and be ready to accommodate or contest their views. If these discussions can be carried out before the planning

application is submitted long delays may be avoided. By embracing those with strong causes and significant research behind them, the scheme may prove more successful in the longer term. Over recent years this message has increasingly found its voice (see for example BPF/LGA 2014 [a] and [b]).

2.1.9 Building Users

Actual or perceived user demand for accommodation is the basic trigger for the development process; it influences land prices and rents, to which developers respond; such is established though sometimes challenged, Ricardian theory (Ricardo, 1817). If the user of a building is the developer or is known prior to design completion, they become a key stakeholder within the process and this is a desirable position as it improves the chances of the building operating successfully over a long period of time. However, it is often not the case. In many residential schemes, and some (though currently less commonly) commercial schemes, developers produce buildings geared primarily to the financiers' short or long-term requirements whilst failing to fully appreciate who might subsequently occupy the building and therefore failing to adequately plan for user needs. It is recognised now that developers should investigate and understand users' requirements and likely future requirements; so doing will assist in ensuring that the building meets with higher levels of sustainability; it is also likely that the building will be designed with flexibility either within use- or possibly across use – in mind. Building flexibility is regarded as a key criterion of sustainability (Ellison and Sayce, 2007) as is discussed later.

When the user is known early, they are the most significant stakeholder, but an uninformed client may be strongly influenced in decision making by their advisory team. In principle, the property will be designed and built to their needs, which can be specialised, especially for industrial or non-commercial, non-domestic users (e.g. education or health facilities). Where the known future occupier is a lessee and they who seeks to impose any features which the developer deems may negatively impact of future user demand, the developer will seek to negotiate a compromise to provide a more standard and flexible type of building, so that the investment market for the building is wider in the event of disposal and the value is protected as security for loan purposes. It could be argued that such an approach could better future-proof the building and hence enhance whole life sustainability. The counter argument is that if building is designed to meet its users' needs, there is less likelihood of it failing functionally or being vacated prematurely.

Non-domestic occupiers mostly perceive the buildings they use as a resource and a necessary overhead cost of fulfilling their activities as services or product providers; they have little sense of their space as an investment asset. Many major occupiers employ in-house property or /and facilities management teams; however, despite strenuous moves to contain costs, many users still do not plan their property requirements pro-actively and expertly resulting in calls for changed behaviours (see for example Haynes, 2012; Taylor, 2013); they simply react to changes as they happen and this approach can and does affect

the whole lifecycle sustainability of a development. Inevitably the property requirements of building users are influenced by both the short-term business cycle and long-term structural changes underlying the general economy. The design of property and its rate of development including its inherent sustainability are inevitably affected by this. As such these attributes influence users at a specific level or across the business sector in which they operate. Their accommodation requirements are affected further by advances in technology impacting physical property needs; and, the move to more sustainable workplace practices.

Building users have been criticised for not knowing what they want, though many companies are gaining more understanding of the role of sustainable property within their businesses and their requirements in terms of specification (see for example, Harrison *et al.* 2004). This is partly demonstrated by the expansion of Facility Management (FM) as a role as well as sustainability rating tools for design and operational phases in the lifecycle. As users have divergent needs and concerns, it renders it hard for developers to produce sustainable buildings that meet the needs of as many users as possible. Financial institutions respond by looking for the best quality specification with space plans to suit the widest possible range of users. The result is users may have to lease space that compromises their requirements in terms of location or specification that leads to users stripping out buildings and retrofitting or fitting them out to their requirements. Frequent fit out is inherently unsustainable and there is evidence in some markets short lease terms leads to fit out of waste of services, materials, fixtures and fittings (Forsythe and Wilkinson, 2015). In response, there is now a widespread movement to understand more fully how buildings can be designed to facilitate sustainable retrofits and refurbishments.

Lease terms highlight another area of divergence between financial institutions and users. Users require flexible lease terms to respond in the short-term to changes in their property requirements. In markets such as the UK, institutional investors conventionally prefer longer lease terms with upward-only rent reviews and repair clauses placing liability on the tenant. However when there is excess supply and a downturn in the market as with the global financial crisis, many will accept shorter lease terms with break clause options if the market is demanding such agreements and the tenant's covenant is strong, albeit that value adjustment may result. In the US and Australian markets it is usual to have shorter lease terms and within the UK, this too has been a structural trend with commercial new lease lengths now being typically between 5 and 15 years. This could have an impact on the whole lifecycle sustainability of property as users typically fit out their space when taking new leases – if tenants relocated every 5-7 years or so the rate of fit out will be high with its attendant high embodied energy, higher rates of waste and landfill and so on (Forsythe and Wilkinson, 2015). However, a new lease does not necessarily mean a new tenant-though there is little hard evidence as to the average occupation (as opposed to lease) length.

Another sustainability issue concerns the tendency to over-specify, notably in office developments. Although developers and the financial institutions arguably do consider user needs, in an effort to future proof their developments against assumed ever greater reliance on technology, many office buildings

developed over the last decade have been over-specified with over-use of non-renewable imported materials and an over-reliance on complex air-conditioning with a consequent increase in embodied carbon and also in-use greenhouse gas emissions (van de Wetering and Wyatt, 2011). More recently the trend is moving towards energy efficient buildings which maximise their use of natural ventilation, minimise imported materials and use air-conditioning only where absolutely essential. However in the interests of true triple bottom line sustainability, such specification changes should not be seen as a trigger to accelerate the pace of building replacement: that in itself becomes an unsustainable approach. In the interests of sustainability it should be accepted that it takes many years to replace existing stock with new build and that process itself has high social and environmental impacts; therefore it is imperative to improve the existing stock.

In summary, decision-making in property development is complex; more so when the desire or requirement to embed sustainability in all its guises is the process. Much of this complexity arises from the lack of deep understanding of the issues; but some is the result of the interactions between the many stakeholders all of whom have legitimacy in influencing decisions to varying degrees and at different points in the process (Kincaid 2002). Each stakeholder represents a different interest and has different educational and professional backgrounds that further influence their decisions. Furthermore some stakeholders fulfil more than one role in the process. Table 2.1 provides a summary explanation of some of the relationships detailed above between the stakeholders and their respective roles and responsibilities as well as their influences or impact on sustainability in projects.

Table 2.1 Stakeholders and their influence on decision-making and sustainability in projects

(Source: Wilkinson)

Stakeholders	Description and professional affiliations	Stage in development process where decisions are made	Degree of influence on sustainability / impact on sustainability. (high, medium, low)
<i>Policy makers</i>	Federal, State and Local Government departments.	Direct influence on potential site supply and use. Indirect effect on decision-making in adaptation at all stages.	High to low.
<i>Regulators</i>	Local Authorities, Planners, Heritage, Building Surveyors, Fire engineers (Planning Institute of Australia, Institute of Fire Engineers).	During design concept and development stage (and possibly during construction if amendments are made).	High.

<i>Owners</i>	Landowners, public and private institutions, individuals.	Beginning and throughout if likely to be end user.	High to low.
<i>Developers</i>	Organisations that combine investment, production & marketing in whole or in part. Professionals from bodies listed in producers above and others.	Throughout.	High to low.
<i>Investors</i>	Pension / superannuation funds, insurance companies, banks, independent investors, professionals who find capital to invest.	Beginning / early.	Low?
<i>Producers</i>	Professional team – Facilities Manager, Quantity Surveyor, Architects, Engineers, contractors, surveyors, suppliers (Royal Institution of Chartered Surveyors, Australian Institute of Architects, Australian Institute of Quantity Surveyors, Australian Institute of Building Surveyors, Fire Engineers, Structural and Mechanical & Electrical Engineers).	Varies depending on specialism (see above)	High to low.
<i>Marketeers</i>	Surveyors, stakeholders, agents, professionals who find users for buildings (Australian Property Institute, Royal Institution of Chartered Surveyors).	During design (if selling off plan) and /or construction stage.	High to medium.
<i>Objectors</i>	Large institutional owners, individuals, business organisations, local community groups, pressure groups.	Beginning / early and eventual take out.	Medium to low.
<i>Users – Corporate Residential</i>	Large institutional owners and users Individuals Business organisations Users	Beginning to late.	High to low.

2.2 Conclusion

This chapter has described the role of each of the major stakeholder groups that engage with property development and it established that their actions can impact on the eventual level of sustainability achieved within the development. Whilst some groups, such as investors, constructors and developers,

have an easily recognised role it would be too simplistic to ascribe the sustainability or otherwise of a building solely to their actions. Table 2.1 indicates that they do indeed exert differing levels of influence dependent on the type of development.

In 2000, concern in the UK had become intense that, despite strong steer from government to stimulate 'sustainable buildings' developers were not seeking to go 'beyond compliance' within their schemes. And so was developed the notion of a circle of blame in which each major stakeholder group was seen to be in favour in *principle* but lacking a business case to move forward. Since then market demand pressures have changed; so too have many of the regulatory frameworks which are discussed in later chapters.

Undoubtedly, where buildings are commissioned for owner-occupation for the long-term, the interests of differing stakeholders can coalesce and aid in the drive towards sustainability. Therefore, perhaps it is understandable that many case studies of sustainable buildings, including the early examples of those certified to the highest rating levels are buildings that lie within the public sector owner occupation, such as the Wessex Water Building. This building, completed in 2001 achieved the highest ever rating at the time. In commissioning it the company placed sustainability at the centre of its operational requirements; as a consequence, the project considered environmental, social and economic factors including staff opinions, the relationship with neighbours and the ability of the building to adapt to future change (Heid, 2001).

However, what has also become more widely recognised is that there are many stakeholder groups, all of which interface in often complex and non-transparent ways which subtly or otherwise, impact on the decisions made regarding specification, design and execution of the development. The last decade, which witnessed the world financial crisis and consequent falling rents, caused many stakeholders to appraise both their attitudes and policies. It also coincided with the strengthening of the CSR agenda and the regulatory response to the challenge of climate change. Whilst collectively these pressures on stakeholders may not yet have completely turned the vicious circle into the desired virtuous circle, undoubtedly headway has been made. Further chapters will draw out in detail the factors, including sustainability factors that each stakeholder considers in the process.

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