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# Responsible Property Investing

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This paper was written for the principles for responsible investment project of the United Nations Environment Programme Finance Initiative (UNEP FI). The UNEP FI is a global partnership between UNEP and the financial sector to understand the impacts of environmental and social considerations on financial performance. As recommended in this paper, the UNEP FI is organizing a Property Working Group (PWG) to further examine the issues discussed here. Information about the PWG can be obtained from the authors. Responsible property investing (RPI) means maximizing the positive and minimizing the negative social and environmental effects of property investing, consistent with fiduciary responsibilities. Our understanding of these issues has progressed a good deal over the decades due to work by the United Nations and others. Property markets are inextricably linked to urban problems and better management of both new and existing properties is needed to resolve them. The perception that RPI necessarily dilutes investment returns should be challenged. There is mounting evidence that RPI can be financially sound and socially beneficial. Leaders have emerged that are demonstrating its feasibility. Their activity should be considered as a basis for best practice guidelines. There is a need to develop metrics for comparing progress on RPI. We recommend: 1) establishing an RPI working group, 2) summarizing prior reports on urban issues, 3) identifying investment strategies that are profitable and responsive to the issues, 4) clarifying the financial effects of different responses and improving our means of measuring

them, 5) identifying best practices, 6) adopting a rating system, 7) supporting RPI investment funds, and 8) recognizing leaders in the field.

## **Keywords**

real estate; property investing; environment; social ethics; community

## **Introduction**

*“Colonial First State Property is engaged in investment activities through its property fund management and corporate real estate businesses. A key objective of the investment process within these businesses is to assess the sustainability of all its practices.”*

It is probably apparent to anyone who thoughtfully considers real estate that it can both contribute to and be affected by many of the social and environmental issues that face the world's societies. Until recently, however, most real estate investors would likely have said that while they are sympathetic, such issues are really for government to address and not of direct concern to their investment practices. But today, a new view is emerging, based on a growing awareness among real estate professionals that various social and environmental issues can have significant material consequences for their investment portfolios. Shifting consumer behavior, worsening environmental hazards, tougher government regulations, expanding legal liabilities, increasingly expensive resource and material inputs, and greater pressure from affected stakeholders are all converging to make it both financially risky to ignore social, environmental, and governance concerns and financially beneficial to address them in the process of real estate investing.

This paper discusses responsible property investing (RPI) as a positive way of responding to this emerging view. RPI, in a nutshell, means maximizing the positive effects and minimizing the negative effects of property ownership, management and development on society and the natural environment in a way that is consistent with investor goals and fiduciary responsibilities. It requires both an understanding of how cities and buildings relate to these larger issues and knowing how to address them in a financially prudent manner.

## What Are the Issues?

Our understanding of how cities and buildings impact on society and the natural environment has progressed a good deal over the past few decades. This understanding provides us with a solid foundation on which to build principles for responsible property investing.

The UN has focused on cities and buildings at least since the 1972 Toronto Declaration of the UN Conference on the Human Environment and the 1976 Vancouver Declaration on Human Settlements (Habitat I). These groundbreaking declarations framed both the constructive and destructive roles that urban areas can play in human health, poverty, housing, governance, and our natural environment.

*“Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all...”* -----Declaration of the UN Conference on the Human Environment, Stockholm, 1972

*“The improvement of the quality of life of human beings is the first and most important objective of every human settlement policy. These policies must facilitate the rapid and continuous improvement in the quality of life of all people, beginning with the satisfaction of the basic needs of food, shelter, clean water, employment, health, education, training, (and) social security...”* -----Vancouver Declaration on Human Settlements, 1976

After the Stockholm and Vancouver declarations, many UN commissions, meetings, programmes, and reports took a closer look at the issues and recommended principles and strategies to address them.<sup>1</sup> The most recent example is the Urban Environmental Accords (UEA) signed by mayors from around the world in June of this year on the occasion of the UN Environment Programme’s 2005 World Environment Day. The UEA recognizes the environmental challenges and opportunities associated with the fact that the

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<sup>1</sup> They include The Habitat Agenda (Habitat II), The Istanbul Declaration on Human Settlements (which among other things sought to “encourage socially and environmentally responsible corporate investment by the private sector”), The Declaration on Cities and Other Habitats in the New Millennium, State of the World’s Cities, The UN Urban Management Programme, The First World Urban Forum, The World Urban Forum II, Water and Cities, the Global Environment Outlook, Agenda 21, the Hong Kong Declaration on Sustainable Development for Cities, The 10-Year Framework of Programmes for Sustainable Consumption and Production, Trends in Production and Consumption: Household Energy Consumption, the UN Millennium Development Goals, Culture in Sustainability of Cities, UNESCO’s Urban Development Programme and the World Health Organization’s Healthy Cities Programme.

majority of the planet's population lives in urban areas that are growing at the rate of one million people per week (see Table 1), acknowledges that the UEA builds on past efforts to create an "ecologically sustainable, economically dynamic, and socially equitable future for our urban citizens," and proposes 21 actions that cities can take to improve themselves. Many of the actions require changes in how we locate, build or manage buildings and are, therefore, important for principled investors to consider.

**Table 1: Percentage urban by development group, selected periods, 1950-2030<sup>2</sup>**

	Percentage urban (%)					Rate of urbanization (%)	
	1950	1975	2000	2003	2030	1950-2000	2000-2030
World	29.1	37.3	47.1	48.3	60.8	0.96	0.85
More developed regions	52.5	67.2	73.9	74.5	81.7	0.68	0.33
Less developed regions	17.9	26.9	40.5	42.1	57.1	1.63	1.15

The UEA's 21 proposed actions, in summary, call for:

- improvements in energy conservation, renewable energy, and greenhouse gas emissions;
- more recycling and waste reduction;
- further development of higher density, mixed use, walkable neighbourhoods;
- better coordination of land use, transportation, and open space systems;
- easier access to jobs for low-income neighbourhoods;
- improved parks and recreational facilities;
- increased tree canopy coverage along sidewalks;
- the preservation of wildlife and their habitats;
- enhanced transit access;
- less commuting by single occupancy vehicles;
- superior air quality;
- reduced exposure to toxic chemicals;
- safeguards for drinking water sources, and
- more use of recycled water.

Add to this list concerns about historic, visual and cultural resources, involuntary relocations, decent housing, and stakeholder participation, and we have a fairly complete catalogue of the social, environmental, and governance issues that should be considered in a program of RPI.

Each of these concerns could be converted into targets for real estate

<sup>2</sup> The table is from World Urbanization Prospects: The 2003 Revision, UN: New York, 2004.

portfolios. For example, an institution might adopt the goal that within 5 years its aggregate portfolio will use 15% less energy, recycle 30% more material, locate 20% more of its holdings in new or existing higher density, mixed use, walkable neighbourhoods, and locate 30% more of its investments in locations with above average unemployment or accessible by public transit from high unemployment areas.

Further guidance on RPI can be found in existing international norms on corporate behavior. Good examples include:

- the Equator Principles which commit its adopting institutions to only supporting projects that have a complete Environmental Assessment and address key social and environmental issues including compliance with the International Finance Corporation and World Bank Guidelines and Safeguard Policies;
- the Global Compact, which asks participating companies to act in accordance with human rights, fair labour practices, environmental protection, and anti-corruption practices;
- the International Finance Corporation's (IFC) environmental health and safety guidelines for office buildings and tourism developments that set standards for siting, liquid effluents, stack emissions, solid and liquid wastes, life and safety issues, and avoidance of natural hazards;
- the IFC's safeguard policies on cultural property, involuntary resettlement, and natural habitats;
- the World Bank's General Environmental Guidelines and pollution guidelines on industrial estates;
- the International Organization for Standardization's environmental management standard (ISO 14000) on what a firm should do to minimize harmful effects on the environment caused by its activities and to achieve continual improvement of its environmental performance; and
- recommendations by the Institutional Investors Group on Climate Change, the Carbon Disclosure Project, and others that are encouraging the reporting of investment-relevant information on greenhouse gas emissions by private companies.

## **The Important Role of New and Existing Properties**

Urbanization and real property markets are inextricably linked. The historical and spatial evolution of these processes lie at both the heart and the potential resolution of the multifarious urban issues which confront national and metropolitan policy makers around the globe today. For example, according to the UN's Intergovernmental Panel on Climate Change (IPPC),

residential and commercial buildings account for 21% and 11%, respectively, of global carbon dioxide (CO<sub>2</sub>) emissions, with transportation adding a further 22%.<sup>3</sup> Therefore, the decisions and choices made by those involved in the real property market (developers, owners, managers and tenants) are central to the potential mitigation or exacerbation of many critical urban issues.<sup>4</sup>

At any given time, there will be an existing stock of real properties with associated infrastructure and open spaces and, depending on demand pressures at any given time, there will likely be new development, redevelopment and property refurbishment works occurring, with the former typically adding 2%-4% to existing stock per annum in developed countries; a greater percentage in emerging economies. Commentators commonly focus on showing how the environmental and social impact of new additions to the built stock can be minimized. This work is clearly of great importance. However, any set of principles for RPI must also consider what can be done to reduce continuing impacts from the much larger stock of buildings that are already in place. In aggregate, small improvements to the social and environmental performance of existing properties could more than match the impact of significantly improving the quality of incremental new stock. Both new and existing properties need to be addressed.

## Investor's Goals and Fiduciary Responsibilities

*“We will continue to act responsibly as investment managers on behalf of investors and clients, implementing environmental strategies which are cost effective and positive or neutral on returns” -- Colonial First State Property*

As intimated above, RPI requires strategies that respond constructively to social and environmental issues whilst simultaneously satisfying investor goals and fiduciary responsibilities. If it could be shown that investing responsibly actually enhanced investment returns, then this would be unproblematic since it would become a fiduciary duty to do so. By contrast, if it could be shown that there was no demonstrable gain or loss associated with investing responsibly, then real estate investors would face a moral

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<sup>3</sup> Intergovernmental Panel of Climate Change. *Climate Change 2001: Working Group III: Mitigation*. 3.3 Buildings and 3.4 Transport and Mobility. UNEP and WMO, 2001. Available online at [http://www.grida.no/climate/ipcc\\_tar/wg3/089.htm](http://www.grida.no/climate/ipcc_tar/wg3/089.htm).

<sup>4</sup> There are different types of participants and different types of properties in the market. The opportunities that exist for addressing social and environmental issues may vary depending on whether the investors are governmental or private entities, whether the investments are in direct ownership, joint ventures or co-mingled funds, and what type of properties are considered. These complexities will not be elaborated on here, but readers should be aware of their existence.

choice as to whether to invest in this manner. Sadly, despite a lack of strong evidence either way, experience suggests that there is currently a tendency for real estate investors to perceive that investing responsibly results in higher costs with no immediate increase in asset value. As such, investing responsibly is perceived as dilutive to investment returns and is not, therefore, undertaken willingly.

Given the centrality of the real estate investment decision-making community to the evolution and management of the urban built stock around the world - in particular those fund managers who control investment capital - the above perception needs to be challenged most vigorously. For example, there is a need to critically review the timescales by which they conduct their fiduciary duties and investment analyses. In a world where general concerns over environmental and social issues are certain to grow and policy responses toughen, fund managers need to set the avoidance of small costs in the short term against the potential for major deleterious investment impacts in the medium and long term. Such 'short-termism' could be deemed to run contrary to fiduciary responsibilities over the medium term. Similarly, and in any event, real property fund managers should actively be demanding that their asset localized managers find 'no cost' and 'low cost' socially and environmentally friendly alternatives to managing every aspect of their properties.

There is enough research evidence available currently to show that it is not axiomatic that investing responsibly will harm investment performance but, even if such was the case, the issue of negative financial effects raises two related issues, both concerning the boundaries used by fiduciaries in measuring returns on investments. The first issue is suggested by the 'universal owner hypothesis', which recognizes that highly diversified investors own a slice of the whole economy. This hypothesis was developed by Professors James Hawley and Andrew Williams from the Center for the Study of Fiduciary Capitalism at St. Mary's College of California. Some of the most significant benefits that may be produced by RPI, such as healthier and more productive workplaces, which have the potential to generate very substantial economic returns to their occupiers, may primarily benefit the tenant companies rather than the building owners, notwithstanding the higher rents and property valuations this might command. However, to the extent that real estate investors are "universal owners" with shares in the tenant companies, they may receive a return on responsible property improvements via their holdings in the tenant companies. Thus, certain social investments that do not produce sufficient returns directly to the investor's real estate portfolio may exceed hurdle rates if returns to the investor's "universal portfolio" are taken into consideration.

The second issue is similar, except that the additional benefits may accrue to urban residents that are participants in or beneficiaries of investment funds rather than to tenant companies. Let's call this the 'resident participant hypothesis'. Individuals who are both fund participants and residents in a community where the fund invests may see a responsible property improvement that benefits their community as a good investment even if it performs financially less well than alternative real estate opportunities. For example, a worker living in an area with high unemployment might consider it "worth it" to have their pension fund build properties that bring jobs to their community even if the buildings earn a below-market return. In this regard we have seen massive structural change in property ownership over the past fifty years as the ownership of property has become increasingly "institutionalised". In the UK and US, for example, individuals now own less than half of all U.S. equity in commercial properties. This makes average people, through their life insurance policies and pensions, amongst the main beneficiaries from real estate investments and suggests a growing fiduciary responsibility to account for the total effect that real estate investments have on fund participants, both as investors and as residents of places materially affected by their investments. A responsible property investment could produce an acceptable net gain in utility for fund participants even if it lowered the fund's overall financial performance.

We recognize that the additional returns due to universal ownership or any resident/participant effects may be small, particularly for smaller funds and real estate portfolios. Moreover, there may be legal, though debatable, constraints on taking such factors into consideration. But the actual size of these effects is yet to be measured. And even if they are not large, perhaps through collective attention to these issues, such as through industry wide cooperation, legal mandates, or public subsidies, the financial and social benefits of certain responsible actions that may not currently generate sufficient returns could be made more feasible.

## Doing Well While Doing Good

*"Implementation of sustainability initiatives into normal business practice provides opportunities to add value and to have a strong positive impact on investors' returns." ----- Colonial First State Property*

RPI can add value and improve returns in several different ways.<sup>5</sup> First, legislation is more frequently holding companies responsible or accountable

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<sup>5</sup> See World Wildlife Fund, *Building Towards Sustainability: Performance and Progress Among the UK's Leading Housebuilders*.

and subject to fines if they ignore various social or environmental issues. Second, development that addresses local concerns is often more quickly permitted or given subsidies by local government officials. Third, there are opportunities to improve operational efficiencies and increase competitiveness when costly resource consumption is reduced. Fourth, strong reputational benefits can be achieved. And fifth, responsible producers can increase market differentiation for their products, giving them an edge, especially with the growing number of consumers who are interested in socially and environmentally responsible products.

The most fully documented case of RPI benefiting investment returns is energy conservation. Energy conservation generates a variety of societal benefits including lower green house gas emissions, less air pollution, and better public health. Meanwhile, it lowers operating costs, improves net operating incomes, and raises valuations resulting in higher returns from both operations and appreciation. According to research by the U.S. Environmental Protection Agency, drawing on experience from real estate investment companies that participate in its Energy Star program, a recommended sequence of upgrades designed to save energy costs an average of US\$2.30 per square foot, reduces energy use by 40%, produces an annual savings of US\$0.90 per square foot, and is paid back in 2.5 years (see Table 2). If this sequence of costs and returns is analyzed for a 10-year period, with the energy savings being capitalized into building valuation and returned at the end of 10 years, the internal rate of return for the investment comes to 41%. In separate research, cost estimators are finding that energy-efficient buildings are being built at the same cost per square foot as conventional buildings by developers making careful choices early in the design process. Any conservation premiums that do exist, however, typically fall below both the accuracy normally expected of early cost estimates and the contingencies carried on most project budgets at the conceptual stage.<sup>6</sup>

Investments in energy conservation can also moderate a variety of property investment risks, which when accounted for in a discounted cash flow model, increase property values. Such risks include financial risks, such as exposure to energy price shocks, policy risks, such as exposure to new energy conservation requirements,<sup>7</sup> and physical risks, such as exposure to

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<sup>6</sup> See Lisa Fay Matthiessen and Peter Morris. *Costing Green: A Comprehensive Cost Database and Budgeting Methodology*. Davis Langdon, July 2004. Also see Steven Winter Associates, Inc., *GSA LEED Cost Study: Final Report*. United State General Services Administration, 2004.

<sup>7</sup> "To halt global warming, a growing number of local planning authorities are implementing the (UK) Office of the Deputy Prime Minister's revised planning policy statement (PPS22), requiring a percentage of energy to be used in new residential, commercial or industrial developments, to come from on site renewable energy. At least 15 local authorities have written policies into their draft development plans, which demand that large new commercial buildings generate 10% of

more frequent or severe flooding, landslides, and hurricanes produced by climate change.

**Table 2: Investments in energy efficiency have high returns<sup>8</sup>**

	Investment per SF (\$)	Rate of Energy Savings (%)	Annual Savings per SF (\$)	Savings per 100,000 SF Office Building (\$)	Asset value increase at a 10% capitalization rate (\$)	Simple payback
Janitorial services	0.01	5	0.14	13,500	135,000	Immediate
Operations & Maintenance	0.05	9	0.20	19,800	198,000	4 months
Lighting	1.04	16	0.36	36,000	360,000	3 years
Heating, Ventilation & Cooling	1.21	9	0.21	20,700	207,000	6 years
All combined	2.30	40	0.90	90,000	900,000	2.5 years

There is scientific evidence that other types of RPI can be financially prudent as well. Opportunities include water conservation, hazard mitigation (asbestos, toxic chemicals, landslide exposure, etc.), tree planting and greenbelt protection, construction and demolition waste recycling, flexible building systems, urban revitalization, transit oriented housing, walkable mixed use infill development, and citizen engagement in project planning. Investments in all of these activities have been found to produce favourable returns and improved valuations or short payback periods, offering the potential for increased performance and reduced risk.

In one example, the Sustainable Property Appraisal Project, carried out by a team of researchers at Kingston University and real property industry practitioners in the UK, has analysed the extent to which the present value of existing property assets is potentially affected by the existence or absence of ‘sustainable’ features. Though the work remains preliminary in nature, their case studies suggest that such features, in a British context at least, could already be adding or subtracting up to 5% to the current worth of the asset.

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their energy on site from renewable sources. A case in point is the London Borough of Merton which in July granted planning permission for a 10,500 sq m development by DIY retailer B&Q in New Malden. B&Q will generate 10% of its energy needs on site from renewable sources. A wind turbine and photovoltaic cells on the roof will generate electricity, and solar panels will produce hot water. The building will also feature a ground-source heat pump, which draws air from underground to help cool offices in summer and heat the checkout area during winter.” See [www.upstreamstrategies.co.uk/intell/report.asp](http://www.upstreamstrategies.co.uk/intell/report.asp).

<sup>8</sup> Calculations based on national averages and \$0.09 per kWh blended rate for office properties and given in US dollars

## **Emerging Industry Leadership**

RPI is not altogether new. Leaders have already emerged among both investors and investment management companies, demonstrating that it is feasible to implement RPI practices.

In California, the state's two large public retirement funds—the California Public Employees' Retirement System (CalPERS) and California State Teachers' Retirement System (CalSTRS)—hold over 200 million square feet of property. In a move they explicitly recognize as both socially and financially responsible, both funds have set goals to reduce the energy use in their real estate holdings by 20% over the next five years. They have also increased their investment in urban, inner-city real estate to over US\$2 billion, including US\$300 million for affordable housing. CalSTRS has engaged its investment stream on energy conservation by adopting a set of conservation measures for the managers of their separate (i.e., not co-mingled) accounts to follow. CalPERS has adopted specific policies for urban investments that include a focus on low-income housing, redevelopment, and “smart growth” alternatives to suburban sprawl.

In another case of leadership, VicSuper, one of Australia's largest public offer superannuation funds, with assets of over A\$3.3 billion, has awarded a direct property investment mandate to a fund manager on the basis of that fund manager's sustainability credentials. This is an important signal that fiduciaries can send down the supply chain. Such competitive tendering could be a key way of encouraging real estate managers to increase their RPI practices.

There are also publicly traded real estate investment companies and trusts around the world that have made significant commitments to corporate social responsibility and sustainable development. Several are listed in the Dow Jones Sustainability World Index and similar indices. Examples include British Land Plc (UK), Investa Property Group (Australia), Land Securities Plc (UK), Commonwealth Property Office Fund (Australia), Swire Pacific Ltd. (China), Wereldhave (Netherlands), Mitsubishi Estate Co., Ltd (Japan), and Klepierre (France). In addition, a 2004 survey of UK's 13 largest home builders, produced for the World Wildlife Fund One Million Sustainable Homes Campaign, found Countryside Properties and the Berkeley Group to be leaders in incorporating sustainability into their mainstream business practices.

Closer study of the policies and practices of these leading funds and

companies, which we are currently undertaking (see Appendix 1), will generate a list of best practice guidelines for investors to consider. Of course, even the best may have room to improve, but the innovations they have achieved so far may well be feasible for others to consider.

## The Need for Metrics

There is no set of broadly accepted metrics for evaluating the commitment of real estate investors to principles of RPI. Investment management firms also lack guidelines for reporting on how their portfolios and practices conform to such principles. Ultimately, different metrics may be required to account for the differences among nations<sup>9</sup> and types of property. However, there has been some work we are aware of which may provide useful ideas for the development of metric systems. In one instance, the SAM Group, (with offices in the USA, Australia and Switzerland), has developed a specialized set of proprietary questions for real estate finance and construction firms concerning economic, social, and environmental issues. It uses the results to produce company biographies and to identify firms that should be included in the Dow Jones Sustainability World Index (see [Emerging Industry Leadership](#)). In another case, the U.S. Environmental Protection Agency has developed a method for identifying Energy Star “Leaders” based on the energy performance of portfolios held by commercial and institutional building owners. There is also interesting work available from Upstream Sustainability Consultancy, Insight Investment and the World Wildlife Fund on how to rank the sustainability of housebuilders (see Appendix 2), from Upstream on benchmarking the sustainability performance of shopping centres and office buildings,<sup>10</sup> and from Innovest Strategic Value Advisors comparing the energy efficiency and energy management of publicly traded real estate investment trusts in the U.S.<sup>11</sup> Other noteworthy systems include the Hong Kong Building Environmental Assessment Method and Australia’s Building Greenhouse Rating and Occupational Health and Safety rating systems.

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<sup>9</sup> Work on how investors in Asia view socially responsible investing in comparison to those in the US and Europe is available from the Association for Sustainable and Responsible Investment in Asia. One study found that 89% of Japanese individual investors felt that corporate social responsibility should be taken into account in their investments. See Environment Ministry of Japan, *SRI: An International Comparison of Investor Views*. Hong Kong: ASRIA, 2003.

<sup>10</sup> See [www.upstreamstrategies.co.uk](http://www.upstreamstrategies.co.uk)

<sup>11</sup> See Innovest Strategic Value Advisors, 2002. *Energy Management & Investor Returns: The Real Estate Sector*.

## **Recommendations**

Considering the state of affairs as described in this paper, we would recommend that the following actions are taken to promote RPI worldwide:

1. Establish an RPI Working Group. The Group should be primarily composed of financial institutions, but capable of consulting with expert fund managers, developers, property managers, urban planners, architects, engineers, and policy makers in order to develop workable principles and strategies that are consistent with investor goals and fiduciary responsibilities.
2. Produce a summary of prior reports and agreements on relevant urban issues, providing a clear presentation of the leading issues that are affected by real estate investments.
3. Recommend investment strategies that respond to and address these issues in ways that are consistent with investor goals and fiduciary responsibilities. Include specific targets, such as for reduced energy consumption and increased investment in inner-city transit oriented development.
4. Specify where these strategies have positive, negative or neutral effects on the financial performance of property portfolios and create methods for measuring their effect on universal ownership portfolios and the net welfare of affected resident/participants.
5. Report on the efforts of firms and funds to implement responsible real estate strategies and identify best practices for others to consider.
6. Identify or develop responsible real estate rating systems and reporting guidelines that are appropriate for different national settings and can be used to track implementation of best practices, help investors compare alternative investments, and perhaps even establish a Responsible Property Investment Index.
7. Identify and invest in real estate mutual funds, REITs, mortgage-backed securities, and opportunity funds that are committed to principles of responsible investing.
8. Establish annual awards in order to recognize leaders and publicize their success, such as the UK's Business in the Community Awards of Excellence.

## **Appendix 1: Preliminary List of Practices Currently Employed by RPI Leaders**

### ***Environmental***

1. Energy, water, waste, and greenhouse gas reduction targets
2. Property-level endorsements for green building, energy conservation, green house gas reduction, and health and safety performance

3. Corporate-level endorsements for sustainability and social responsibility (DJSWI, FTSE4Good, PEG, etc.)
4. Use of renewable energy sources
5. Habitat conservation plans
6. Refrigerants management
7. Occupier training and information on conservation and sustainability
8. Natural hazard risk mitigation plans

### ***Social***

1. Engagement with urban revitalization and affordable housing
2. Support for public and private community development programs
3. Health and safety rating and auditing
4. Unaffordable commitment screening
5. Local hiring and training

### ***Social and Environmental***

1. Multi-modal transportation access, plans, and facilities
2. Urban investment focus
3. Recipient of design, engineering, and service awards

### ***Management and Governance***

1. Corporate responsibility, sustainability and environmental policies including explicit recognition of the economic benefits of RPI
2. Responsibility website and annual reporting including targets and outcomes
3. Designated corporate responsibility officer
4. Responsibility Committee with high level chair and multiple department heads
5. Engagement with other operators in the sector in order to establish guidelines for CSR and procurement policy
6. Supply chain screening, such as ISO 14001 maintenance providers and sustainable purchasing specifications
7. Peer benchmarking
8. ISO 14001 environmental management system or equivalent
9. Staff training around RPI issues
10. Use of risk analysis, lifecycle costing, and value management in decision making and project planning
11. Independent environmental auditing of contractors
12. Manual of required and recommended sustainability features for designers, developers, and property managers
13. Continuous community engagement program

## Appendix 2: A Ranking System for Housebuilders<sup>12</sup>

**Criteria**                      **Performance required to score at the highest level**

<b>Governance and Risk Management</b>	
Risk management	Reporting includes detailed description of approach to both financial and non-financial risk management.
Board commitment	The company has secured board level commitment to sustainability and has a high-level committee to integrate sustainability issues into business decision-making. The company has either internal or external resources to assist with implementing the sustainability strategy.
Sustainability policies	The company has a board-approved comprehensive sustainability policy integrating environmental, social and economic responsibilities and publishes its policies in its cores and supplementary disclosure.
Disclosure	Supplementary disclosure has external assurance and contains full descriptive issue coverage (environmental, social and economic) with management targets and extensive performance data, targets and priorities for the next year.
<b>Impact on the Environment</b>	
Management systems	The company has an environmental management system certified to ISO14001 or the EU Environmental Management and Audit Scheme and makes its environmental performance data available to external stakeholders.
Commitment to eco-homes	The company uses the UK's BRE EcoHomes methodology on all new developments and has a target to achieve very good or excellent ratings.
Ecology	The company states that full biodiversity action plans are completed for all major developments and implementation is monitored.
Climate change	The company recognizes climate change as a critical business issue and demonstrates a commitment to achieving high standards of thermal efficiency, procuring white goods with energy efficiency rating B or above and can provide examples of projects (in progress or completed) that are integrating renewable energy on-site. The company can also provide performance data and targets relating to its climate change impacts.
Water	The company can provide examples of projects that have incorporated water minimization devices, specified water-efficient white goods, used rainwater harvesting, and greywater recycling systems that have integrated sustainable urban drainage systems.
Domestic waste	The company integrates communal waste management facilities on all major projects. It can provide examples of projects that have incorporated facilities for storing separated waste into individual dwellings, as well as facilities for composting organic waste.
Transport	The company acknowledges the importance of reducing car dependency, states a commitment to upgrade local transport infrastructure and promote public transport beyond Local Authority requirements, and can provide examples of innovative initiatives to reduce car dependency and the environmental impacts of car travel.

<sup>12</sup> From: World Wildlife Fund, *Building Towards Sustainability: Performance and Progress Among the UK's Leading Housebuilders*

**Criteria**                      **Performance required to score at the highest level**

(continued)

Procurement	The company states that it has a consistent and detailed process for considering the environmental impacts of materials and specifies the use of recycled/reclaimed materials, materials with low embodied energy, and timber from FSC-certified sources. The company discusses with its suppliers their approach to environmental impacts.
Construction waste	The company states that it has integrated waste management strategies on all sites including regular monitoring of their implementation. Performance data and targets are available externally.
<b><u>Impact on Society</u></b>	
Health and safety	The company carries out internal and external health and safety audits and the board manager with responsibility undertakes regular site visits. Performance data and targets are available externally.
Considerate construction	The company participates in the Considerate Constructors Scheme on all eligible projects.
Employment	The company has a commitment to employing local labour on all major schemes. It can provide examples of local employment initiatives and strategies for combating long-term unemployment.
Sustainable communities	The company has a specialist team dedicated to delivering affordable housing. It can provide examples of projects where it has developed a long-term neighbourhood management strategy and engagement with consumers to promote long-term sustainable living.
Stakeholder engagement	The company has identified its key stakeholders and can provide examples of detailed stakeholder dialogue as well as open, proactive relationships with NGOs and other organisations seeking to promote best practice in sustainability.