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An Investors' Perspective on **Environmental Metrics for Property**

United Nations Environment Programme

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Introduction

It is generally accepted that meaningful property metrics are central to the fight against carbon emissions. Without them, property investors and government policy makers can neither understand the current environmental performance of existing and new buildings nor gauge the rate of progress being made to reduce their harmful greenhouse gas emissions and other environmental impacts.

The good news is that, for over a decade, well-meaning and highly qualified environmental experts have been giving their time and expertise, often voluntarily, to debate and establish all manner of metrics, standards, codes and labels by which the environmental and social1 performance of commercial and residential properties can be measured.

Sadly, as has tended to be the case throughout the short history of 'green issues' and their intrusion into the operation of the property market, the property investment community has perceived such issues as environmental metrics to be essentially 'technical' and, therefore, of limited direct relevance to its everyday functions. Given this, environmental metrics for buildings have largely developed without material input from the property investment community.

For two simple and connected reasons, this position is no longer tenable and the time has now come for the property investment community to engage in earnest in the debate about environmental metrics for buildings. These are as follows.

1. Impracticality

The natural and laudable focus of environmental professionals has been to establish the 'best' environmental measures possible. As such, debate has centred around the inclusion or exclusion of different variables or descriptors in green building labelling schemes, and the merits and demerits of using different definitions for the variables used. The natural driver for technicians involved in this process is to be comprehensive in the description of a building's environmental credentials. However, herein lies the first major problem.[1]

Clearly, each individual variable chosen to constitute a green metric or label represents a data requirement to be met by an owner or manager of a property asset. As such, the more demanding the measurement regime becomes, the more environmental data is required. A comprehensive list of data requirements may be manageable for single buildings (such as the individual new construction schemes that most current labelling systems were initially designed to apply to) but quickly becomes unmanageable, costly and impractical for the assessment of whole portfolios or geographical areas.

Given the relatively minor importance of development in the fight to reduce carbon emissions from the built environment compared to the much greater stock of existing buildings, the investment community needs metrics providers to re-orientate their data requirements to better observe upon the existing stock rather than focus mainly on developments – something that is, thankfully, now beginning to happen.

However, the consequence of the above is that some of the current and emerging building metrics schemes are very demanding in terms of the data they require answers for. Using the example of one current scheme, if a typical institutional property portfolio has 50 properties and the environmental performance measurement of each property requires 50 questions to be answered, then 2500 answers will be needed from an asset owner or manager to measure the environmental

1 The UNEP FI PWG recognises the importance of understanding the social impacts of buildings on the communities in which they are situated and the related impact they have on investment performance. As we pointed out in 2007 (UNEP FI PWG, 2007), such metrics could include assessments of how urban revitalisation, health and safety for workers and visitors, worker and customer well-being, contributions to community life, fair labour practices, historic preservation, and other social and community-based actions can contribute positively to investment performance. However, purely for reasons of focus and addressing the multiple issues that have arisen, the concentration in this paper remains firmly on a review of environmental metrics.

credentials of that portfolio. Larger funds will naturally be required to provide even more answers. Furthermore, if, for whatever reason (such as having an internationalised portfolio of investments), data requirements for more than one labelling or measurement system have to be satisfied, this data requirement could prove even more onerous.

The concern here is clear. However well meant and technically rigorous they may be, if the demands for up-front data appear too onerous for asset owners or managers, there is likely to be resistance or delay in their engagement with measurement regimes seen as burdensome rather than useful.

This suggests the need to develop a practicable approach where environmental metrics are developed in such a way that, on the one hand, they are robust enough to meet the main technical requirements of measuring a building's environmental performance but, on the other hand, are practical enough to encourage and engage investors in measuring the environmental performance of overall funds (or policy makers measuring the performance of areas in their jurisdiction).

We are starting to see this happen. In Japan CASBEE is beginning to discuss with market participants a short form version of the CASBEE metric (the CASBEE for Market Promotion tool.) In the US and Europe, LEED and BREEAM are also beginning to roll out 'short-form' versions of their better known measurement schemes, for existing stock.

2. Growing confusion and irritation

A second issue is that the scale of proliferation in metrics development for buildings and the lack of co-ordination across the technical community developing them is such that the property investment community is now being asked to work with a bewildering array of metrics, standards, codes and labels. Asset owners and managers are increasing confused (and irked) by the ever thickening 'alphabet soup' of acronyms relating to building metrics and the organisations behind them, with which they are expected to co-operate. They are uncertain about which are the best or most enduring measures to adopt and this indecision risks delay and potential inaction from the investment community.

Some investors have been sufficiently exercised about this issue to club together in non-profit organisations to either (a) try and establish their own environmental metrics for common use or (b) provide some kind of 'thesaurus' to help them match the various metrics against each other. The new Green Rating Alliance and the Greenprint Foundation are prominent examples of the former. Our own work with UNEP SBCI (UNEPFI and UNEP SBCI, 2009) is an example of the latter.

Clearly, it would be naïve to expect the issue of environmental metrics proliferation to be resolved easily not least because there is substantial personal and organisational vested interest and understandable pride taken in the metrics and labels already established by those who invented them.

There are also logical geographic loyalties amongst investors who tend to favour metrics that have gained prominence in the markets in which they operate. However, the problem of investor confusion can only grow as property investment becomes more global. Investors are increasingly faced with either trying to take their domestic metrics with them into locations where they are not supported or recognised, or using native metrics with which they are less familiar.

However true the above may be, neither barrier is insurmountable or nor a reason for not speaking out or trying to improve the current, chaotic, situation.

So, if the investment community has absented itself from the development of property metrics to date and is now experiencing both confusion and excessive demands being made upon it, how might it make a meaningful and worthwhile contribution to metrics development and their role in carbon emission reduction going forward? We address this key question in the remainder of this paper.

Environmental versus fiduciary focus

We can observe from the above discussion that environmental performance metrics have, to date, focussed on understanding the impact that a building has on the environment. However, within their limited perceptions of fiduciary duty, this is of limited relevance per se to most investment professionals. Clearly, if and when the environmental performance of buildings is shown to impact upon the investment performance of their property investments, then it becomes the fiduciary duty of investment professionals to understand how the environmental attributes of their assets is related to the current value and future investment performance.

This suggests that investment professionals are most likely to be interested in obtaining and reviewing data on those environmental performance features of building they believe most likely to impact investment value.

In this regard, apart from 'energy efficiency', there is as yet still limited understanding of how specific environmental features of buildings impact current future investment values and performance. This also means that investors are currently being expected by metrics providers to expend considerable cost and effort gathering data for which they can potentially discern some reputational but no clear financial reward. This does not readily encourage them to engage in environmental measurement. This is especially so since metrics continue to relate largely to individual buildings rather than whole portfolios which means they cannot easily judge how they or their competitors are performing in general but only on potentially 'cherry picked' individual assets.

Over and above understanding the relationship that environmental and investment performance might have to each other, there is a second clear interest that property investment managers might have in the environmental performance of their overall portfolios, namely if, for reputational or investment performance reasons, it influences whether asset owners' hire them as managers. In this regard, more general questions might well be asked about how, in relative and absolute terms, an individual property portfolio or 'investment house' is performing in purely environmental terms.

(We should acknowledge at this point that establishing the relationship between property environmental and investment performance requires substantial amounts of data either across a wide range of properties at any given time or for the same properties over a long period of time, or both. Such data will take time to assemble but the sooner we begin, the sooner we will have answers.)

Summary on 'the story of property metrics so far'

In summary, most of the work done so far on property metrics development has been 'supplier-led' rather than 'user-led' (with the honourable exceptions of initiatives like the Green Rating Alliance, Greenprint, and a few others). It has also had a clear focus, until recently, on individual new construction projects rather than portfolios of existing properties. This has led to a current unsatisfactory situation where the needs of neither financial institutions nor environmentalists are being met and traction on data provision is disappointingly slow. It is also a situation rich in irony.

The first such irony is that the very passivity shown by the property investment community towards metrics creation has led to metrics providers develop their systems in a conceptual vacuum. In turn, this has contributed indirectly to the confusing, chaotic and thoroughly sub-optimal situation that is now creating mounting frustrations amongst the investment community.

The second irony is that, through their sheer inventiveness and demand for technical rigour, the well-meaning and energetic technical community could ultimately hinder or at least delay the take up of their own products. By being naïve, uncoordinated and overly demanding they are failing to engage those they need to provide data. To gain the 'buy-in' of asset owners and property fund

managers and truly succeed in establishing a widespread system of environmental performance measurement, metrics providers need to understand the operational dimension of what they are asking for. This may require them to be more 'tactical' and less 'purist' in their approach to the investment community - at least in the early years.

Investors needs with respect to property environmental metrics

Given the above, the second half of this brief paper, which is based on discussions with members of the United Nations Environment Programme Finance Initiative Property Working Group (UNEP FI PWG), explores the needs that property investors have with respect to environmental metrics. The intention is to give some preliminary direction and insight to those current providing or planning such metrics into how they can better ensure take up and success. The following remarks will also form the basis for a further planned piece of work by UNEP FI PWG to identify how they wish to see property environmental analysis develop in the future, and to improve the general level of engagement, take up and success of environmental measurement.

What follows is based on the answers to three questions, namely,

1. What do responsible property investors want to use metrics for?

Responsible property investors are likely to want property environmental metrics for a range of reasons.

i. As investors increasingly recognise the significance of the environmental performance of their properties (and, in aggregate, their portfolios) to both the financial performance and the overall reputation of their funds and businesses, they will increasingly need to understand not only where they stand in absolute terms but also in relative terms to others with respect to both the current environmental performance of their funds and how it is changing over time.

This suggests they need to understand questions of the following type:

(a) the prevailing absolute environmental performance of their properties and aggregated portfolios ("how is my property/portfolio performing environmentally?" – or "are we doing well?");

(b) the prevailing relative environmental performance of their properties and aggregated portfolios ("how is my property/portfolio performing environmentally compared to those of others?" – or "are we doing as well as others?");

(c) the change over time in the absolute environmental performance of their properties and aggregated portfolios ("how much improvement is there in the environmental performance of my property/portfolio?" – or "are we improving"); and

(d) the change over time in the relative environmental performance of their properties and aggregated portfolios ("how much improvement is there in the environmental performance of my property/portfolio compared to that in others?" – or – "are we improving faster or slower than others?").

This sort of performance analysis might be described as 'environmental performance measurement'. It has many features that resemble those seen in the early days of investment performance measurement which burgeoned in the mid-1980s (and which also developed after a period of rival metrics development).

ii. Second, investors will be keen to link environmental performance metrics with investment performance metrics to establish and better understand the significance of the former to the latter. Clearly, the overall investment performance of a property is impacted by many different variables (e.g. how 'prime' a location it occupies, how financially sound its tenants are, how much time remains on the lease contract, etc.). Hence, as with investment performance attribution, asset owners and managers will want to understand how specific 'sustainability-based' variables are impacting their asset values and portfolio performance. In order to do so, they will naturally also need to pool their investment performance data – something that occurs in many developed property investment markets, but not all.

iii. Third, metrics should also act as clear signals for action. As such, investors will want to see information on the costs of making different types of environmental improvement; understanding the scale of any investment benefits (through, say, additional income or reduced outgoings), and establishing the pace at which economic benefits from environmental action will accrue.

2. What aspects of their operations do 'responsible property investors' require metrics on?

It is clearly neither the core competence nor a requirement of the property investment community to determine the most meaningful environmental variables to be collected on a property or portfolio. However, the variables listed in Table 1 below are currently believed as the most likely to have a link to asset value and performance and should, therefore, prove the most interesting to investors.

Table 1: Environmental metrics with investment implications

VARIABLES	TYPICAL SUB-AREAS	INVESTMENT LOGIC
Energy usage, management and generation	Electricity used; gas used; other fuels used; existence of energy management systems; the sources of energy used; the presence of on-site energy generation	If energy costs rise above the rate of inflation, this increased real 'cost of carbon' will (a) impact property occupiers through depressing their ability to pay rent and (b) decrease net income for owners. Therefore, knowing about the energy efficiency of properties in a portfolio provides insight into its potential to generate future rental growth and returns. A property that can provide some of its own energy needs should keep costs down and prove a lower risk.
Carbon Dioxide emissions	Carbon dioxide emissions	As in the UK, this could become the basis for national and regional carbon trading schemes and form the basis for future local and national property taxes. These would then form a deduction from investors' gross income.
Water usage	Existence of water management systems; the presence of on-site water harvesting	In some regions of the world, climate change will increase the importance of the availability and cost of water. A property that reduces its need for water or can provide some of its own water needs should keep costs down, provide higher net income, and prove a lower risk to owners and investors.
Property accessibility	Proximity to public transport systems and nodes; dependence on petrol/diesel powered vehicles; cycling-related facilities	If the cost of private travel rises above the rate of inflation, then the users of properties more distant from public transport will experience greater real costs. The increased costs of travel for consumers and workers should increase costs and reduce income for occupiers and, thereby, depress tenants' ability to pay rent and, thereby, decreasing asset value.
Asset Vulnerability (Climate change)	Violent storms, extreme heat and cold, utility disruption	Then implications of changes in weather offer both opportunities and challenges. Will operating cost increase or decrease, will tenants be able to occupy the asset and pay rent, or will there be a loss of return to investors as a result of their inability to service tenants, and the increased operational and capital costs that may be become necessary to preserve the asset against these vulnerabilities?

Source: Modified and edited from IIGCC (2010)

Given they also appear to cover many of the major issues from an environmental perspective and form key elements of most established metrics and labelling systems, they would also appear to form a natural and meaningful core to any future environmental metrics system or conventions that seek to engage investors at a portfolio level.

3. How should environmental metrics for property be developed to increase their adoption and impact on the activities of property investors?

Given the prevailing confusion and growing dismay amongst asset owners and their property fund managers with respect to the current state of environmental metrics, it seems natural that UNEP FI PWG is keen to encourage all current and future metrics providers to work much harder than hitherto to make their various metrics systems compatible with each other.

We are aware that some limited progress is currently being made in this regard but would urge this be greatly accelerated and expanded in scope. In this regard, we are equally clear that property industry organisations around the world have a major role to play in encouraging metrics providers to work harder to cooperate with each other to satisfy the needs of asset owners and managers.

However, if no progress is made in this regard then it is to be expected that more investor led initiatives, such as those by Greenprint and the Green Property Alliance, will emerge as investors themselves attempt to solve their concerns with environmental measurement.

Over and above improving their co-operation, we would strongly urge metrics providers to continue to develop relevant 'short form' versions of their full metrics services to more readily facilitate the construction of aggregated measures of environmental performance to cover portfolios, areas and even whole markets. Individual properties might form a natural 'unit' for those interested in environmental rather than investment measures, especially in relation to new construction projects. However, there are many more potential users of environmental metrics who would like to see environmental performance data at aggregated level. For example, asset owners like pension funds would find whole portfolio environmental performance statistics useful when choosing between property investment managers to manage their portfolios; policy-makers might wish to understand how a definable contiguous geographic set of buildings is performing environmentally; and property investors will be keen to understand how their portfolios are performing both in absolute terms and relative to others across their market.

Consequences

Given the above, we believe that there is a growing need for more refined and focussed 'short-form' metrics that can be readily rolled out across whole portfolios or areas, allowing the performance of portfolios, markets or areas to be better understood.

In our view, if property environmental metrics providers want to gain better traction with investors, they need to do, at least, the following:

i. **prioritise** those variables with the greatest potential to impact on value and performance – other variables can be added later;

ii. **be moderate** in the requests they make; ask only for essential data initially to make the collection task initially less onerous for investors;

iii. **develop simple but meaningful measures** that are easy to understand and to provide data for; and

iv. **ensure metrics are applicable at portfolio level in addition to asset level.**

Conclusion

By constructing simple and well understood systems of environmental performance metrics that are relevant to asset managers and owners and which they are content to engage with and supply data for, interested parties will obtain a clear understanding of the current state of the existing built stock, how well its owners and managers are managing that stock, and what progress they are making.

If we are to accelerate and expand the crucial contribution that the built environment can make to the reduction of carbon emissions, property owners and fund managers need to engage much more actively than they have done to date in the development of practicable environmental metrics for buildings. By making metrics systems more compatible, simpler, more relevant to investors and more capable of capture across whole portfolios, we believe this can be done.

Looking forward

Through its membership, UNEPFI PWG is in the fortunate position of being able to form a bridge between financial and environmental experts and move forward the dialogue on environmental metrics that this paper calls for. With this in mind, we intend to develop further the debate on the issues raised in this paper and identify more specifically the needs of investors in the field of property environmental measurement. To this end, we are establishing a sub-group from within our membership to review and report on, at least, the following issues.

- What environmental metrics are relevant for today's property owners and managers?
- What should an environmental performance analysis service for property owners and managers provide?
- How can we best engage financial institutions in portfolio-level environmental measurement? What variables should data be collected on, what should the frequency of data collection be, and what reporting services would be desirable or required?
- How the integration of environmental performance indicators to other sustainability/responsible property investment metrics, satisfy the investors requirements for a simple method to assess and compare ESG behaviours in property portfolios, in line with many of their own commitments to the PRI?

The aim of this work is inform metrics providers and the property investment community on how best to improve the relevance of environmental measurement, provide the means to increase the engagement of property owners and fund managers in environmental measurement and, ultimately, to increase the levels of environmental data collected. In this way, we believe investors, environmentalists and policy-makers can be furnished with the data they need to better understand the environmental performance of the current built stock, increase the potential to understand how environmental and investment performance are linked, and to assist policy-makers to take appropriate action and measure progress.

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The aim of the UNEP FI Property Working Group is to encourage property investment and management practices that achieve the best possible environmental, social and financial results.

The members of the group are:

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