Unlocking the natural capital premium in international land valuation

Fiona Mannix

Keywords: Natural capital, ecosystem services, valuation, impact investment

ABSTRACT

African wilderness areas and environments are under threat and the assets needs to be valued, benchmarked and tracked to protect them from misuse, abuse and loss. Africa is heavily reliant on its natural capital and resources for wealth creation but this needs to be quantified to negotiate investment projects that are sustainable and fair for stakeholders.

The ability to be able to unlock the value in these natural capital assets through sustainable tourism, real estate and resource development is the key to catalysing a low impact high value rural economy.

However, natural capital valuation is currently struggling to gain traction as a concept for a variety of reasons not least because;

- It is too subjective and not directly economically attributable or market based
- It is not recognised at a regulatory and policy valuation, environmental or accounting level
- It is not directly accounted for by investors when making a risk managed investment decision

There are differing definitions and terminology of what it is - no consistent or recognisable approach

There are differing methods - no clear categories, metrics or approach to valuation.

There is a market of private and public conservation and commercial projects who are seeking to quantify the natural capital of their assets for transactional, development and management purposes. There is a clear opportunity to lead the world in setting and applying a consistent, recognised and defendable approach to natural capital valuation.

RICS has two papers in this area "Challenges for international professional practice; from market value to natural value" and "Value of natural capital - the need for chartered surveyors".

The third paper from RICS, which will result in an international guidance note, develops our earlier work, has a global remit, market focus and utilises Africa as a relevant geographical region to help inform thinking. The guidance will enable the valuer to quantifiably value the natural capital in a portfolio as a promotional tool and maximise the natural capital of an asset.

By enabling quantification of natural capital this will also assist in satisfying reporting requirements for conservation values.

Unlocking the natural capital premium in international land valuation

Fiona Mannix

1. NATURAL CAPITAL – AN OVERVIEW

Natural capital has been defined by the Natural Capital Protocol (NCP) as the "world's stocks of natural assets which include geology, soil, air, water and all living things". It is from this natural capital that humans derive a wide range of services, called ecosystem services, which make human life possible and for which humans utilise these services for their benefit.

Natural capital accounting has been defined by NCP as the process of calculating the stocks and flows of natural resources and services in a given ecosystem.

Ecosystem services has been defined by the Millennium Ecosystem Assessment (MA), to be; "the benefits people obtain from ecosystems." The MA classifies ecosystem services under:

Supporting services: The services necessary for the production of all other ecosystem services including soil, photosynthesis, biomass, nutrients and water;

Provisioning services: The products obtained from ecosystems, including food, fibre, fuel, genetic resources, power and fresh water;

Regulating services: The benefits obtained from the regulation of ecosystem processes, including air quality regulation, climate regulation, water regulation, erosion regulation, poaching regulation, natural hazard regulation;

Cultural services: The non-material benefits people obtain from ecosystems through spiritual enrichment, recreation and aesthetic experiences – thereby taking account of landscape values, use and non-use benefits to buyers and users.

The Economics of Ecosystems and Biodiversity (TEEB) is a global initiative focused on "making nature's values visible" whose principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels.

The Natural Capital Protocol introduced a policy framework in 2016 designed to standardise the approach to assist organisations to identify, measure and value their direct and indirect impacts and dependencies on natural capital. The Protocol harmonises existing tools and methodologies, to guide organisations towards making informed decisions of their impact and dependencies on natural capital. Whilst this framework provides a level of decision making support there is no clear standardised valuation approach.

There has been a considerable body of work completed by international stakeholders around Natural Capital Accounting and assessment. This has been led by the UN under their 'System

of Environmental-Economic Accounting' (SEEA) approach and contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics on the environment and its relationship with the economy.

Similarly, 'Wealth Accounting and the Valuation of Ecosystem Service' (WAVES) is a World Bank-led global partnership that aims to promote sustainable development by ensuring that natural resources are mainstreamed in development planning and national economic accounts. These programmes are hugely beneficial in the organisation, management and representation of data, however again there is no standard guidance on valuation approach.

The significant piece of work to reference from a UK viewpoint is the UK National Ecosystem Assessment published in 2011. This was the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. It was an inclusive process involving government, academia, NGOs and private sector institutions and covered terrestrial, freshwater and marine ecosystem services across the UK. The assessment contained 6 key messages:

The natural world, its biodiversity and its constituent ecosystems are critically important to our well-being and economic prosperity, but are consistently undervalued in conventional economic analyses and decision-making;

Ecosystems and ecosystems services, and the ways people benefit from them, have changed markedly in the past 60 years, driven by changes in society;

The UK's ecosystems services are currently delivering some services well, but others are still in long term decline. Out of total range of services approx. 30% are declining;

The UK population will continue to grow and its demands and expectations will continue to evolve. This is likely to increase pressure on ecosystem services in the future and climate change will have an accelerating impact;

Actions taken and decisions made now will have consequences far into the future. It is important that these are understood so that we can make the best possible choices, not just for society now but also for future generations;

A move to sustainable development will require an approximate mixture of regulations, technology, financial investment and education as well as changes in individual and societal behaviour and adoption of a more integrated, rather than conventional sectoral, approach to ecosystem management.

The UK National Ecosystem Assessment was the driver for the formation of the Natural Capital Committee in 2012, an independent advisory body to Government on the sustainable use of England's natural capital - its forests, rivers, atmosphere, land, wildlife, oceans and other natural assets.

A UK National Ecosystem Assessment follow-on phase was published later in 2014. In summary, this resulted in the development of principles, methodologies and functional tools to guide inclusion of ecosystem services in both policy-making and decision-making.

While all this was occurring, the private sector was beginning to take note. CIMA, the Chartered Institute of Management Accountants published their paper "Accounting for Natural Capital – The elephant in the boardroom" in 2014. This incorporated a call for the profession to take centre stage in development of methods of accounting for natural capital.

All of this lead to the development of Corporate Natural Capital Accounting which resulted in the Natural Capital Committee working with a consortium of both public and private sector organisations including PwC to develop a framework for organisations to take better account of the natural capital they own, depend on, or for which they are responsible.

This was based on the recognition of that fact that it is the private sector who owns and manages the majority of natural capital in the UK. In England for example, over two thirds of land is privately owned.

Better management of natural capital can significantly increase the value we derive from it and the way in which organisations manage their business can have profound impacts on natural capital.

Over the course of 2014 there were pilots of the Corporate Natural Capital Accounting framework with four major landowners - The National Trust, Lafarge Tarmac, The Crown Estate and United Utilities. On completion of the pilots the Natural Capital Committee published several documents.

In 2016 the Natural Capital Committee (NCC) was reformulated and there was reiteration of the fact that the Government's goal is to leave the environment in a better state than it was found.

The Environment Plan previously referred to which was launched at the beginning of this year sets out Government's goals for improving the environment within a generation. It details how Government will work with communities and businesses to do this.

2. RICS ROLE

RICS, mindful of all the developments on the subject of natural capital and ecosystem services and seeing the need for the profession to engage, in 2012 commissioned their first Thought Leadership paper on the subject of natural capital and ecosystem services "Challenges for international practice: from market value to natural value". This highlighted how new approaches to the valuation, appraisal and management of natural capital and natures services - ecosystem services – promised to transform the way land is managed, development is undertaken, assets are appraised and valued, and a range of goods and services previously taken

for granted are paid for. The paper predicted that developments in the ecosystem services arena would have far reaching implications for the work of chartered surveyors in valuation, estate and property management, construction, property development and environmental services.

"Value of natural capital – the need for chartered surveyors", the second paper commissioned, developed RICS thinking on the topic of ecosystem services. The paper reviewed the broad topic of environmental valuation from the perspective of a practising valuer, land manager or estate manager and approached the field of economic valuation of the environment from a professional valuation perspective.

Valuers are familiar with the rigours of a commercial market place for their services. This underlines the importance of protocols and processes for the preparation of a valuation from the initial instruction through to reporting and follow-up advice. No less important is the choice of method, and the collation and analysis of physical, economic and financial data.

Valuers in most disciplines will have studied a core valuation syllabus which emphasises the primacy of transaction analysis and comparison (the comparable method), income models (the investment method, profits method, residual, discounted cash flow) and cost of replacement approaches (Depreciated Replacement Cost). They will also have absorbed the importance of working from a clearly-defined Basis of Value – traditionally Market Value but increasingly Fair Value, Investment Value and Worth. Knowledge for professional practice in valuation has been hard-earned over the years, not least when the work of valuers has been exposed for scrutiny in the courts in the course of a negligence claim but also in other disagreements over compensation based on land values, rents on review and other value-based disputes.

It is not surprising therefore that valuers often view wider concepts of value and worth with scepticism. Yet valuers are often required to value the unvaluable. For example, the value which must sometimes be ascertained for an unassignable traditional agricultural tenancy for tax or other purposes. The law on tax valuations evolved through the twentieth century to devise the conceptual schemes in which valuations like this could be undertaken. Even so, such valuations tend never to be very far from the market place – looking for the market value of underlying assets or related interests in the same property. It is against this background that valuers tend to be wary of methods which are more remote from the market place of day to day transactions.

The language and approaches of environmental valuation are presented in the second RICS paper to enable parallels to be drawn with the professional and technical procedures that are familiar to professional valuers when dealing with the valuation of conventional property assets in established (actual or notional) market contexts. Naturally, care is required to ensure that clients fully understand the nature of the advice being provided, and that there may — and usually will — be wide divergence between figures provided on these fundamentally different bases.

Economic valuation does draw on far more bases of valuation than conventional property valuation. Whereas the professional valuer's menu consists of market value, fair value,

investment value and worth plus a few occasional others, the environmental valuer has a far greater choice.

Economic valuation: value concept = basis of value

This section offers a non-technical summary of the main value concepts adopted by environmental valuers, or in traditional valuation terms the bases of value used by environmental valuers.

Altruistic value: The value we place on the knowledge that environmental resources are available for other beneficiaries even if no personal benefit is derived from them.

Bequest value: The value we place on the knowledge that environmental resources will be available for future generations, even if no personal benefit is derived from them.

Economic value: Worth to particular people or to society as a whole. Can mean the same as social value and societal value.

Existence value: The value we place on the existence of environmental resources irrespective of human use or engagement with them.

Non-use value: A collective term for Altruistic, Bequest and Existence Value

Option value: The value of knowing that resources will be available to us in future, even if we don't use them now.

Total economic value: portmanteau phrase to characterise and value the benefits which people receive from the environment.

Use value: The value of personal benefits from use of the natural environment. These personal benefits may be direct and indirect, they may be from present use and future use.

A common theme running through all these concepts is the treatment of externalities. These are factors, costs or impacts which are not represented in the prices paid for goods and services. A key difference between economic valuation and conventional valuation and pricing is that economic valuation is concerned to capture and measure the value of externalities, for example, the impact of pollution from manufacturing or farming which may have health effects and require clean-up costs which are external to the market transaction.

While the paper outlined examples of grasslands and woodlands, the approaches involved can be applied across a range of natural assets. However, it's important to note the distinction between the value of an asset as it stands for sale / notional sale and the evaluation of an asset for strategic decision-making purposes for its deemed or perceived benefits / dis-benefits associated with its existence, enjoyment, environmental or aesthetic contribution. While the

deemed or perceived benefits of some assets may translate into part of a sale / notional sale, others will not.

3. VALUING NATURAL CAPITAL

The third paper from RICS currently in production "Valuing the natural capital premium in international land assets" which will take the form of an international guidance note develops the earlier works, has a global remit, market focus and utilises Africa as a relevant geographical region to help inform thinking. African wilderness areas and environments are under threat and the assets needs to be valued, benchmarked and tracked to protect them from misuse, abuse and loss. Africa is heavily reliant on its natural capital and resources for wealth creation but this needs to be quantified to negotiate investment projects that are sustainable and fair for stakeholders.

The purpose of the guidance note is to provide a defendable and standardised approach to the valuation of the natural capital premium for international land assets.

Natural capital is a new approach to valuation that holistically brings together environmental economics previously outlined and a market approach.

The objective is to enable rural land valuers to take a considered, robust, and justifiable approach to valuing assets with special environmental or natural attributes, of which their special value would otherwise be ignored under existing valuation techniques.

The guidance will enable the valuer to quantifiably value the natural capital in a portfolio as a promotional tool and maximise the natural capital of an asset. By enabling quantification of natural capital this will also assist in satisfying reporting requirements for conservation values. The ability to be able to unlock the value in these natural capital assets through sustainable tourism, real estate and resource development is the key to catalysing a low impact high value rural economy.

Natural capital valuation is currently struggling to gain traction as a concept for a variety of reasons not least because of the following:

It is too subjective and not directly economically attributable or market based;

It is not recognised at a regulatory and policy valuation, environmental or accounting level;

It is not directly accounted for by investors when making a risk managed investment decision;

There are differing definitions and terminology of what it is – no consistent or recognisable approach;

There are differing methods – no clear categories, metrics or approach to valuation.

There is a market of private and public conservation and commercial projects who are seeking to quantify the natural capital of their assets for transactional, development and management purposes. There is a clear opportunity to lead the world in setting and applying a consistent, recognised and defendable approach to natural capital valuation.

RICS will seek to ensure that rural valuers and members seek to inform themselves with the approach because it is relevant to:

Natural capital is held within land assets owned and managed long-term, by private and institutional owners, where there is a will to maximise asset value and preserve the environmental attributes;

Natural capital and ecosystem services unlocks a number of commercial opportunities for eco-tourism, improved forestry and agricultural practice and sustainability development to rural clients;

There is a growing asset class concerned with environmental impact investing that is seeking to acquire and hold assets with special natural capital attributes for which professional advice is sought;

Developing a global market opportunity for valuers to lead and provide professional, market based valuation, which is accepted by UK and international stakeholders and market participants.

The key strength of this guidance will be its link to the market however it will refer to certain terminology, property classification, market participants and theory that might not be well understood by chartered surveyors. Therefore, it is important to set out certain definitions and how they relate to the approach. This should be used in conjunction with the existing Property and Asset definitions set out in the 2017 Red Book and IVS.

The guidance will define Total Economic Value within the context of a market value basis, being the asset for which a service is provided, must be possible to trade and to transfer ownership or access rights in a secure way, and there must be market demand under a willing buyer-willing seller basis.

Within the international community the basic principle of natural capital is not controversial, however uncertainty and debate exists over how best to value the assets and ecosystem services. Currently governments, businesses and asset owners are valuing using different approaches, which are often not attributable to any defendable market or economic basis. The limitation with this approach is that it has not been accepted by the financial markets. It is an important concept to understand that without the capital market component there is no impact. RICS is fulfilling the need to independently inform their members, regulate and introduce a standardised and accepted approach to valuation set within a market approach. Without

agreement on this valuation approach it is difficult to measure impact consistently and credibly and for it to be accepted by the market.

4. NATURAL CAPITAL ASSET CLASSIFICATION AND USE

For the purposes of the Guidance Note, and in line with the definitions already outlined and the Red Book 2017, natural capital assets can be defined as international rural land and property which provide, harness and exploit eco-system services. Natural capital assets are diverse with a wide range of activity and structure of markets. Valuers should ensure they have appropriate knowledge and understanding of the type of asset being valued. Typical existing classifications of asset are:

- Game Reserves, National Parks, parkland or conservation management areas
- Commercial farms and smallholder agriculture operating sustainable land practice
- Forestry estates and enterprises, particularly re-wilding and hardwoods
- Marine development areas and ecological reserves

Resource concessions or off-shore oil and gas in sensitive terrestrial or marine areas
For all natural capital assets, infrastructure will be a core component of the asset value. It is generally accepted by ecological economist that natural capital should differentiate from infrastructure capital. However, infrastructure and the sustainable development of buildings to provide ecosystem services is integral to use value. The premium to be associated with an asset will be influenced by the role and purpose the infrastructure has in unlocking and exploiting the natural assets, and in the case of buildings, how sustainably they were constructed and can be used.

Ecosystem services and the uses that can be harnessed both directly and indirectly from an asset is fundamental to the classification of a natural capital asset. When reviewing a natural capital asset it is also important to consider the role in the wider ecosystem. This can mean appraising the upstream and downstream impact/benefits, beyond the legally defined boundaries of the property and ecosystem services. For example, an eco-tourism reserve may harvest water from a dam to provide drinking water to a hotel and communities on the reserve, but that water security relies upon the catchment, and the influence of other users i.e. irrigating agriculture or a hydro energy scheme. Equally a forestry asset may be having positive impact on climate mitigation, habitat quality and social uplift but be having a negative impact on soil run off from commercial operations. An additional point regarding eco-tourism is the wider conflict with planetary impact from carbon by attracting people to visit from all over the world.
Land security and control is fundamental to the value of natural capital due to the long-term investment nature, and the fact they provide a variety of eco-system services. Differing land title security will impact value.

5. MARKET FACTORS

Between commercial market investments and philanthropy, lies an investment market that intentionally seeks assets that offer the opportunity to blend financial return, with measurable environmental value and social uplift. The market is *impact investing* and it is a growing asset class.

Impact Investment has been defined by J.P. Morgan and Rockefeller Foundation as investments; "made into companies, assets, and funds with the intention to generate a measurable, beneficial, social and/or environmental impact alongside a risk adjusted financial return'.

Investor buyers are committing to assets where there are 'investment ready' opportunities that meet impact governance and investor criteria. On the sell side project sponsors of suitable assets are looking to divest risk and secure sustainable finance with like-minded investors.

Asset investors and owners are seeking to quantify, track and report measurable growth of environmental value through a structured and quantifiable market approach. Natural Capital provides a recognised approach to defendably value these special attributes and track value growth to support investor reporting, accounting and ultimately achieve a premium on exit.

Market participants, on both the buy side and owner/operator side, are global and can be classified within the following categories:

Passive investors:

- Private wealth to include Ultra High Net Worth individuals (UHNWI's) and Family Offices
- Sector focussed private equity in environment, climate change, agriculture, forestry etc.
- Development Finance Institutions (DFI's) using sovereign aid funds to make a difference
- Foundations of private and corporate philanthropists supporting high impact projects
- Institutional banks placing finance into Green Bonds, development finance, sector funds
- Sovereign Wealth Funds from the Middle East/Asia taking a strategic long-term view
- Retail market supported through impact/environment focussed crowdfunding platforms

Direct owner/operators:

- Private game reserve owners, safari management companies and hospitality businesses
- Agricultural investors and agribusiness groups with environmental/social responsibilities
- NGO's and non-commercial bodies managing conservation and rural impact projects
- Governments who control and manage game reserves and national parks
- Real estate developers with special situation opportunities in rural/wilderness areas
- Resource and oil & gas companies with interests in remote exploration and divestment

Natural capital assets are special and unique. They inherently hold attributes that separate them from standard land assets and therefore there are nuances to consider within a market context:

Wilderness assets are often considered 'at risk'. This means they are directly under threat of degradation or loss. This can create a 'diminishing market' situation where these special assets are unique and becoming more scarce. If these ecosystems are not protected they will lose value, or conversely where they are preserved, or species conserved, then value will increase.

Therefore, many investors will take a view on long-term capital growth as part of their pricing decision and be willing to pay a premium for the hope value of that capital growth expectation. Contrary to this is the further consideration that if the loss of special environments and species is successfully reversed then the scarcity premium will also be less prevalent and could reduce values and market demand to make a difference, however this is unlikely for generations.

In the context of the natural capital market, is important to distinguish between 'land' and 'capital'. Traditional economic analysis of the factors of production, would mean that natural capital would usually be classified as "land" distinct from traditional "capital", however, it is misleading to view "land" as if its productive capacity is fixed, because natural capital can be improved or degraded by the actions of man over time. Therefore, the natural capital premium can go down as well as up depending on the quality of its preservation and sustainable use.

The monetisation of an asset is fundamental to defendably value the natural capital premium within the context of the market and ecosystem services. This is because the majority of market participants require a financial return, albeit risk/impact adjusted, and therefore an enterprise use value is required from the asset. This approach could be criticised by environmentalists for excluding assets that are important from an environmental perspective, but are either too remote or do not possess the qualities required to harvest a direct or indirect business use. However, the only way to robustly value these assets is to apply this market and economic theory, otherwise the approach is too subjective and open to criticism. The ability to unlock the value premium in these natural capital assets, through ecosystem service use, without depleting the natural character and resources in doing-so, is the key to catalysing the market, recognising value and establishing sustainable ecosystem economics.

Applied use value is the basis for natural capital market decisions. However, it is the more subjective indirect use value and inherent non-use value that will often influence the premium attached to natural capital assets the most. It is the ability to make a difference, carve a legacy and leave the world a better place that is the overriding motivation for investing in this asset class. The guidance will provide details on appropriate basis of value, assumptions and value approach using data to robustly quantify this non-use value influence.

Within the international land market, a strong proportion of natural capital assets will be located in emerging and immature markets. This means that evidence of market comparables will be limited and a weighted approach using other methodologies will be required. An appropriate risk yield/discount rate analysis is fundamental when applying an investment, residual and profits approach in an impact market context. Allowance for the special market considerations needs to be built in to a standard market risk analyst, under what is termed a 'negative discount rate' in order to reflect the risk adjusted return view of a typical impact market participant.

The impact market for natural capital is fundamentally about taking an evidence based approach to demonstrate a triple bottom line return with demonstrable impact. Key performance data, benchmarks and indices to support the valuation approach with credible financial, environmental and social assumptions is essential. Valuers should ensure that this data is sourced from project and/or third parties as part of a thorough market investigation.

The guidance currently in production will outline detailed sections on the purpose of valuation, the basis of value and related assumptions and special assumptions.

The guidance will enable the valuer to quantifiably value the natural capital in a portfolio as a promotional tool and maximise the natural capital of an asset. By enabling quantification of natural capital this will also assist in satisfying reporting requirements for conservation values.

BIBLIOGRAPHICAL REFERENCES

Albon A and Turner K and Watson R, 2014, "UK National Ecosystem Assessment Follow-on: Synthesis of the Key Findings" UK, UNEP-WCMC, LWEC.

Cairns, J, "Unlocking the Natural Capital Premium in International Land Valuation", London, RICS. Forthcoming (RICS guidance in production – anticipated publication 2018).

Cowap C, 2012, RICS Thought Leadership Paper "Challenges for international professional practice: from market value to natural value", London, RICS.

Cowap C, 2017, RICS Insight Paper "Value of natural capital – the need for chartered surveyors", London, RICS.

H M Government, 2018, "A Green Future: Our 25 Year Plan to Improve the Environment", London, H M Government.

Natural Capital Coalition, "Natural Capital Protocol", 2016, UK.

Rapacioli S and Lang S and Dr Osborne J and Gould S, 2014, "Accounting for Natural Capital – The elephant in the boardroom", London, CIMA.

Watson R and Albon S, 2011, "UK National Ecosystem Assessment: Synthesis of the Key Findings", Cambridge, UNEP-WCMC.

BIOGRAPHICAL NOTES

Fiona Mannix is an Associate Director of RICS Land Group. Fiona graduated from Trinity College in Dublin with a BSc in Management. She subsequently qualified as a management accountant in the oil and gas sector in London and spent her final years as an accountant in the financial services sector.

Planning a change of career Fiona completed post graduate studies in Co-operative Organisation, Food Marketing and Rural Development. Fiona works with the RICS Rural Professional Group Board and has been instrumental in the development of a suite of guidance for rural members on diverse subjects and has led the engagement of RICS in the natural capital arena.

CONTACTS

Title: Fiona Mannix BSc MA ACMA HDip
Institution: RICS
Address: 12 Great George Street, Parliament Square, Westminster
City: London
Country: UK
Tel. +44 2076951616
Email: fmannix@rics.org
Website: www.rics.org