



Who should value nature?

SUSTAINABLE BUSINESS INITIATIVE – OUTSIDE INSIGHTS

Dario Kenner, Why Green Economy?



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Executive summary

Do you know how to measure the value of the fresh water you drink every day or the carbon dioxide captured by the Amazon rainforest? Is it even possible to calculate a monetary figure for these things? And if nature is going to be valued across the world who should do it: accountants, governments, companies or communities?

Natural capital has been defined as ‘the world’s stocks of natural assets which include geology, soil, air, water and all living things’.¹ The logic behind the natural capital approach is that by placing an economic value on nature (often monetary) we will start to protect it. Instead of receiving things like pollination and climate regulation for ‘free’ we will factor the environment’s value into our decision making because we will know how much it’s ‘worth’.

But should we be doing this? Many of us can agree that nature has an intrinsic value. Is it now time to go a step further and place an economic value on nature? Critics say nature’s intrinsic value is priceless and argue monetary valuation will leave environmental protection at the mercy of market forces as nature is traded and speculated on.

The big focus of current debates on natural capital is **if** we should value nature and **how** to do it. While these largely abstract debates are crucial there’s another question that is very rarely asked: who should value nature? As the exclusive interviews in this report show this is an important question with no clear answers.

In trying to answer this question it’s useful to focus on who should value it in developing countries because this is where ideas on recognising nature’s ‘worth’ are really going to be put to the test. In the global south biodiversity-rich land is under intense pressure to be converted for mining, oil and gas extraction, logging, livestock, plantations, dams – the list goes on. This momentum is only going to grow given that the vast majority of the world’s population lives in developing countries² (where some groups are increasing their consumption³), most of these countries depend on the extraction of raw materials for economic growth,⁴ and many developed countries have outsourced resources used for the products they consume.⁵

But trying to work out who should value nature in developing countries is complicated not least because land rights in many areas of rich biodiversity are often heavily contested⁶ between states, indigenous peoples, local communities, private firms and individuals. In Sub-Saharan Africa it’s estimated that around 90% of land is untitled,⁷ while across the global south mineral, oil and gas, forest and agricultural concessions often overlap with indigenous lands.⁸

Currently, it’s mainly expert bodies including consultancies, specialist companies, academia and conservation NGOs who are valuing natural capital in developing countries, although governments are also becoming increasingly interested.⁹ These expert bodies usually focus on monetary valuation because this is often what they have been asked to do. There is probably also a tendency to believe that monetary values will make a stronger business case to protect the environment. Another factor is the decision-making context which will determine if economic valuation is appropriate (see Appendix 2). It’s important to signal there is as yet no consensus on how to do economic valuation and this is why there are initiatives to harmonise methodologies.¹⁰

Since who owns land in developing countries is not always clear, it’s important to explore how other actors like indigenous peoples value nature. This is an important question because their territories are estimated to cover up to 24% of the world’s land surface and contain 80% of the earth’s remaining healthy ecosystems.¹¹ Indigenous peoples often already recognise non-monetary values based on a spiritual connection to their ancestral lands. For example, the Dongria Kondh indigenous community who live in the Niyamgiri hills in India successfully resisted a planned bauxite mine because of the spiritual value they placed on the area – they referred to the hills as their God and soul.¹² This is a different approach that does not use complex economic models to place monetary values on nature. This different perspective on recognising nature’s value has led some indigenous peoples to strongly reject the natural capital approach.¹³

With the debate raging fiercely on **if** nature should be valued it might seem better to postpone the question of who values for now. But because valuation (whether non-monetary or monetary) might be undertaken differently by different stakeholders it's crucial to think about how the process would play out in practice (ie, whose values would carry more weight?) as this directly informs current debates on whether and how it should happen. For example trying to answer the question of who should value nature reveals it matters **which** stakeholders are valuing an area because the methodology they **choose** to use (of which there are many) will influence whether they place monetary or non-monetary values on an area.¹⁴

Recognising there are diverse ways to value is important because contested land rights in the global south mean there are scenarios where different actors in developing countries will value the **same** area of nature differently. As the list of actors pushing for economic valuation grows – including accountants, consultancy firms, the private sector, governments, environmental NGOs, academics, United Nations agencies, and international institutions such as the World Bank¹⁵ – how do we decide who should do the valuing and whose values are taken into account? Which stakeholders have the power to limit valuation to non-monetary values or broaden it out to include monetary values? Who has the power to determine who has made the 'right' or 'wrong' calculation?

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About the author

For some the green economy is the answer to the world's economic and environmental crises, while for others it is a false solution. Dario Kenner launched whygreeneconomy.org in 2013 as a space to share ideas on the policies that should be adopted now and in the future to address these crises. He has extensive experience of working on the environment and international development, including lobbying at UN climate change conferences and Rio+20. His current research focuses on exploring the different dimensions of natural capital.



Photo credit: Joëlle Hernández

Glossary

There are several concepts that are used throughout this report such as valuation which are difficult to define because they depend on the perspective of the stakeholder. Different stakeholders use similar language in very different ways. This is the nature of exploring an evolving subject area which is heavily contested. For example, if a stakeholder rejects economic valuation they are more likely to understand valuation as being based on intrinsic values. Another factor that makes it difficult to set out one definition is that stakeholders interpret the world using different world views (eg, industrialised societies compared to indigenous peoples) which affects how they value something.

The objective of this report is to generate debate, not to state final definitions of concepts. Therefore, I encourage you to engage with the questions raised in this report rather than focusing on how a concept should or should not be used.

Business case: this encompasses standard cost/benefit analysis, and fully accounting for internal and external social costs. For those who oppose the economic valuation of nature a business case is often the wrong approach (see Box 2 and 3).

Economic valuation: we all value nature in our own way, often based on intrinsic value. Economic valuation goes a step further by trying to identify, quantify and place economic values on the environment. These are usually monetary values but not always. Economic valuation is usually based on recognition of natural capital (see Appendix 2).

Intrinsic value: some see nature as being sacred and the source of life. Intrinsic value can also mean the value of something in and for itself. In this report where it refers to 'intrinsic value' it refers to non-monetary values being placed on the environment (see Box 1).

Natural capital: this is the world's stocks of natural assets which include geology, soil, air, water and all living things. It is important to note that natural capital is a contested concept in itself. Those who oppose the economic valuation of nature reject the environment being described as a form of capital (see Box 2 and Box 3).

Natural capital accounting: identifies and values stocks of natural capital to enable more informed decision making and reduce negative environmental impacts. The idea is it is easier to manage what is measured (see Box 2 and Appendix 3).

Value: there are different ways to interpret what value means (eg, marginal utility, labour etc). Stakeholders have their own subjective ways of judging how much they value something. Value does not mean the same thing as price. Someone might place a higher value on something than the price the product is on sale for eg, drinking water (see Box 1).

1. Do we need a new way to value nature?

In a variety of ways we all have a connection with nature. For many, nature has an intrinsic value in and of itself regardless of how it might be valued by others. Often this is based on a spiritual, cultural and religious connection with the environment.

Awareness of the gravity of the global ecological crisis and the reality of climate change are increasing the pressure for new policies that can deal with these unprecedented challenges. This has led to calls for an economic value to be placed on nature. Proponents of this perspective say that, in addition to recognising nature's intrinsic value, the time has come to measure the world's natural capital as a key way to protect it (see Box 1).

Natural capital has been defined as 'the world's stocks of natural assets which include geology, soil, air, water and all living things'.¹⁶ The basis of the natural capital approach is that we currently receive most things from nature for 'free'. An economic value needs to be placed on these ecosystem services¹⁷ so that we protect them and factor them into decision making, otherwise the environment will continue to be destroyed because it is valued at zero. For several decades researchers have been trying to calculate a monetary value for the direct and indirect ways in which we use the environment such as raw materials, pollination, water regulation, climate regulation and soil formation. There is now a growing group of actors advocating for natural capital accounting to identify and value stocks of natural capital (see Box 2).

However, those who believe nature only has an intrinsic value reject this approach. They see nature as being priceless and are therefore sceptical about attempts to quantify and measure it in monetary figures. Critics of the natural capital approach argue it will not guarantee the preservation of the environment because it could become 'cheaper' to destroy an ecosystem than to look after it. They also say it will undermine our relationship with the environment (see Box 3).

The intention of this report is not to put to one side the debate on whether or not we should perform an economic valuation of nature. The objective is to explore the complementary question of who should value nature to feed into these debates. The competing views articulated by those interviewed in this report show it is important to do this now (see Appendix 1 for interview sample and author comment).

Box 1: Different ways to value nature

COMMON STARTING POINT: NATURE HAS INTRINSIC VALUE

Often this is based on people's spiritual, cultural and religious connection with the environment.

Intrinsic value has also been defined as 'the value of someone or something in and for itself, irrespective of its utility for someone else'.¹⁸

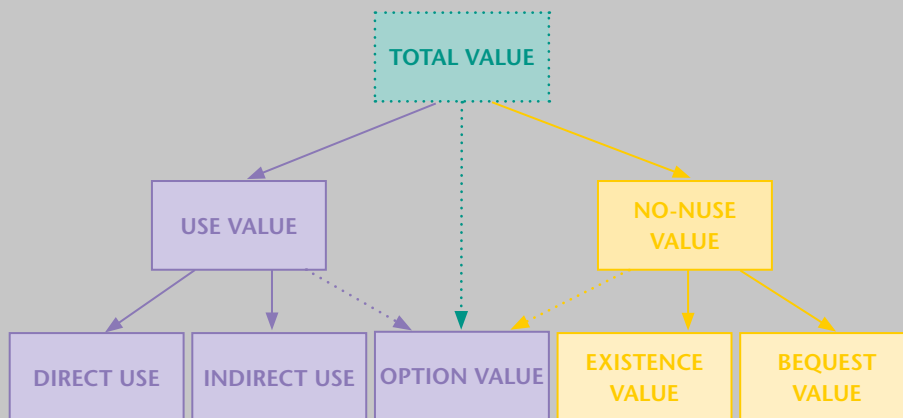
Many people can agree that nature has an intrinsic value. The difference is that some argue that intrinsic value has not been enough to prevent the destruction of the environment and so now a new approach is needed which places economic values on the environment. As the Economics of Ecosystems and Biodiversity (TEEB) *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations* notes: 'whereas ecologists have generally advocated biocentric perspectives based on intrinsic ecological values, economists adopt anthropocentric perspectives that focus on instrumental values'.¹⁹

However, this approach has led to fierce debates about whether it's possible to combine such intrinsic perspectives with anthropocentric economic arguments. Those who believe nature **only** has an intrinsic value often see nature as being priceless. They are therefore sceptical about attempts to quantify and measure it in monetary figures.

Box 1: Different ways to value nature (continued)

ECONOMIC VALUATION: GOING BEYOND INTRINSIC VALUE TO PLACE A MONETARY VALUE ON NATURE

The total economic value (TEV) framework²⁰ tries to add up nature's different values using a common unit such as money. The crucial distinction is between use and non-use values.



Source: Dziegielewska, D. (2013)²¹

Use values: these are things we consume like food (direct consumptive use) and spiritual and recreational benefits (direct non-consumptive use). They also include services like pollination and water regulation (indirect use) and being able to know we can use a service in future (option value).

Non-use values: these are the satisfaction of knowing that future generations will be able to benefit from nature (bequest value), that other people can benefit (altruistic value) and that a species or ecosystem exists (existence value). It is more difficult to monetise non-values because markets usually don't exist for these things.

Box 2: Making the business case for accounting for and valuing natural capital

The TEEB initiative defines natural capital as an ‘economic metaphor for the limited stocks of physical and biological resources found on earth, and of the limited capacity of ecosystems to provide ecosystem services’.²² The objective of the landmark *Mainstreaming the Economics of Nature* report published by TEEB in 2010 was for natural capital to be ‘fully reflected in the mainstream of public and private decision-making’²³ (see Interview A with Pavan Sukhdev).

One way to implement this in practice is to do natural capital accounting. According to the World Bank, ‘natural capital accounts can help countries rich in biodiversity design a management strategy that maximizes the contribution to economic growth while balancing trade-offs among ecotourism, agriculture, subsistence livelihoods and other ecosystem services like flood protection and groundwater recharge’.²⁴

The influential Natural Capital Coalition, which brings together the private sector, accountancy bodies like ICAEW and non-governmental organisations including WWF,²⁵ says that ‘for businesses to be viable in the long term, the natural capital upon which they depend needs to be maintained’.²⁶

In its report *Organizational Change for Natural Capital Management: Strategy and Implementation*, published in March 2013, it argues businesses that embrace natural capital early on will have a competitive advantage and reduce business risk – especially companies that rely on raw materials such as freshwater, food and climate regulation, which the report ‘identified as the most important natural capital risks in the next 3–5 years’.²⁷

The Guide to Corporate Ecosystem Valuation, published by the business coalition the World Business Council on Sustainable Development (WBCSD), argues that valuation ‘enables companies to improve decision-making and thereby increase revenue, save costs and boost the value of their assets and potentially share prices’.²⁸ In an illustrative message companies such as Rio Tinto, Veolia, Eskom and Hitachi Chemical, which have tested the guide, said they used it ‘to deal with the challenges of a resource-constrained world’ and said the guide had ‘enabled us to value the benefits of ecosystem services, choose among alternative land and water management options, and determine new sources of revenue’ (see Interview B with Richard Mattison).

INTERVIEW A: Pavan Sukhdev, CEO GIST Advisory, United Nations Environment Programme Goodwill Ambassador and TEEB study leader

The research done the TEEB project is recognised as one of the key global initiatives advocating for the economic valuation of nature.

Explain why you think nature should/should not be valued?

Humans conserve what they value. However, human society today has become so mesmerised with the supremacy of markets, falsely projected by some as the answer to everything, that it often assumes that only **prices** (market values) represent value. This is of course not true, because markets only trade and price private claims, whereas the public services that nature delivers have no prices – and indeed they should not.

The economic invisibility of nature is a root cause of the problem of ecosystem degradation and biodiversity loss. Policymakers respond primarily to economic arguments which is why it is important to value nature's services to make them economically visible.

Who should/should not be involved in valuation?

Valuation is a human institution, and 'who values', or who is the agent of valuation, is a vital question. From a human rights perspective, it is those who are closest and most dependent on those ecosystems whose valuation matters most. However, provincial and national governments may argue otherwise from an economic or governance perspective. Different agents value nature's services differently, and use different forms of valuation. So it is for society at large to decide **whose valuation** counts.

Does a successful business case require a monetary value to be placed on nature?

Private capital only pursues private profits, not public wealth, and that is why we must be very careful how we design and deliver solutions to the problems caused by the economic invisibility of nature.

Find out more: *The Economics of Ecosystems and Biodiversity synthesis* report.²⁹

INTERVIEW B: Richard Mattison, Trucost, UK

Trucost was setup in 2000 and is a leading consultancy firm working with companies, investors, governments, academics and thought leaders to understand the economic consequences of natural capital dependency.

Explain why you think nature should/should not be valued?

Valuing the services that ecosystems provide to the economy allows companies and governments to understand the reliance we have on nature and develop strategies to mitigate the economic consequences of environmental degradation. Natural capital accounting is an important tool for companies to measure, manage and reduce environmental impacts. It allows environmental performance to be fully integrated into management processes alongside more established business performance indicators.

Who should/should not be involved in valuation?

We need a collaborative process that includes all stakeholders. Governments need to conduct natural capital assessments of their ecosystem services and implement environmental policy measures that minimise environmental degradation and reward preservation of natural capital. Businesses need to reduce natural capital impacts in absolute terms, investors need to engage with company boards to ensure environmental risks and opportunities are being managed effectively, and society needs to purchase greener goods and services and adopt more sustainable lifestyles.

Does a successful business case require a monetary value to be placed on nature?

A business case needs to contain quantified data on the effect of a proposed project so it can be compared to other options. Natural capital valuation means the environmental benefits of projects, such as reduced greenhouse gas emissions and air pollution from constructing renewable energy generation, can be fully accounted for alongside financial benefits. This will allow us to progress to a more sustainable future.

Find out more: *Natural capital at risk: The top 100 externalities of business.*³⁰

Box 3: Rejection of the natural capital approach

During the Rio+20 United Nations Conference on Sustainable Development in 2012 declarations signed by civil society movements³¹ and indigenous peoples³² strongly rejected the natural capital approach, arguing that nature has an intrinsic value which is priceless. For these groups, the objective of valuing natural capital is to make it into a new commodity based on units of 'ecosystem services'. They are sceptical about extending the reach of the market to nature's services. They describe this process as the financialisation of nature³³ whereby 'financial capital will dominate even more how nature is used and who controls access to territories.'³⁴

Many groups are extremely sceptical of the viability of a future trade in ecosystem services because they argue these markets are based on fudged units of measurement applied to something which is intangible, and therefore practically impossible to measure³⁵ (see Interview D with Teresa Pérez).

In 2013 over 140 civil society organisations released a declaration criticising biodiversity offsets – compensating for nature destroyed in one place by creating or improving nature somewhere else – as a 'license to trash'³⁶ and opening up 'natural resources to further exploitation, and undermining communities' rights to be able to manage and protect the natural commons.'³⁷

The Convention on Biological Diversity Alliance concluded: 'the move to market approaches is not only a way to "find more funds", as is commonly articulated by Northern delegates, but it is also about privatizing and commodifying people's commons, bypassing governance systems in the South, all in order to achieve "northern" style conservation with access to resources through private, or "voluntary" means. Based on these concerns, there is growing opposition to market approaches from social movements, worldwide.'³⁸ The Forest Peoples Programme has argued that payments for environmental services (PES) schemes 'often seek to change local livelihood practices, and ill-conceived initiatives risk imposing unjust and unscientific restrictions on the livelihoods and customary resource use of indigenous peoples and local communities.'³⁹

Many of the papers presented at the Green Economy in the South⁴⁰ conference (held in Tanzania in July 2014) on grassroots communities' experience of green economy policies were critical of economic valuation via REDD+ and PES⁴¹ (see Interview C with Thabit Jacob). In the UK civil society groups like FERN and Biofuelwatch have held two Nature is not for sale⁴² summits as alternatives to the World Forum on Natural Capital⁴³ in Edinburgh in November 2013 and the To No Net Loss of Biodiversity and Beyond⁴⁴ summit at London Zoo in June 2014.

INTERVIEW C: Thabit Jacob, Co-organiser of the Green Economy in the South conference

Thabit Jacob teaches at the University of Dodoma in Tanzania which hosted the Green Economy in the South conference in July 2014.

Explain why you think nature should/should not be valued?

Personally I don't agree with the idea of putting a price tag on nature. This idea is inspired by neo-liberal conservationists. It will encourage commodification of natural resources and not serve the interest of biodiversity. It will give much control of such resources to corporations and rich members of society. Instead of advocating for market solutions to protect natural resources, we should strengthen local institutions and empower communities.

Who should/should not be involved in valuation?

I'm not in favour of nature valuation but if my country was to jump on to this bandwagon, I would like to see involvement of some actors more than others. I'm against the recent practice where only private consultants (economists and financial experts) are more involved in nature valuation. The process will make more sense if indigenous communities and local institutions take a leading role in valuation (I believe most will reject).

How do you think different stakeholders will value nature?

Different actors will value nature with diverse motives. Companies will value nature with the motive to make super profits inspired by greedy nature of the corporate world. Indigenous peoples will consider intrinsic value of their relation with nature in aspects such as spiritual values which are priceless and they will resist the idea of monetising nature. Governments will be encouraged by the idea of factoring the wealth of natural assets into national accounting and they will encourage monetisation to portray their richness beyond GDP as advocated by the World Bank.

Find out more: Green Economy in the South conference, Tanzania, July 2014.⁴⁵

INTERVIEW D: Teresa Pérez, World Rainforest Movement

Established in 1986, the World Rainforest Movement works with local communities to defend their rights over their forests and territories. It is based in Uruguay.

Explain why you think nature should/should not be valued?

There are many reasons why attempts to make a monetary valuation of nature are doomed to fail and undermine initiatives to transform the current environmental destruction. A key reason is that valuation confuses symptom and cause. It tries to address the symptom in the belief it is developing a cure for the cause. On top of this the methodological impossibilities and contradictions are mindboggling. Many compensation schemes have failed, yet despite this documented failure the experimenting goes on without learning from these failures.

How do you think different stakeholders will value nature?

The process of valuation is intrinsically linked with the tools that will be used in such valuations. Some argue that the process of valuation is separate from the tool of pricing, however, history clearly shows that the development of the methods is shaped by the tools to be used and vice-versa.

Does a successful business case require a monetary value to be placed on nature?

Business case for whom? For the communities whose businesses and economies are routinely destroyed by those who now suggest that valuation of nature might help respect nature and communities? Or a business case for those who find it increasingly difficult to find sectors to invest in with the guarantee of double-digit returns without conflicts with communities?

Find out more: Trade in ecosystem services: When 'payments for environmental services' delivers a permit to destroy.⁴⁶

2. Who is valuing nature in the global south?

NATURE IS UNDER SEVERE THREAT IN THE GLOBAL SOUTH

If the natural capital approach is going to have a real impact, it will have to reduce the shocking levels of environmental degradation in developing countries.⁴⁷ Think of the mass deforestation to plant palm oil in Indonesia's Borneo forests, the practically permanent oil spill in Nigeria's Niger delta or chemicals from huge mines in Peru polluting the country's rivers.⁴⁸

Key areas of rich biodiversity in the global south are under pressure to be converted for uses such as mining, logging, livestock, plantations, dams and oil extraction.⁴⁹ This momentum is only going to increase in the future as the growing population in emerging economies increases its levels of consumption⁵⁰ and the export of raw materials continues to be the backbone of many developing countries' economies.⁵¹

A key source of this pressure originates in the ever-increasing demand for energy and products from developed countries which have increasingly outsourced the environmental impact of their consumption – ie, developing countries increase their greenhouse gas emissions and other pollutants to produce products that are consumed in developed countries.⁵²

WWF estimates that high-income countries' use of ecological resources and services is 'about five times more per capita than that of low-income countries'.⁵³ In reference to England's international footprint the UK's Natural Capital Committee's *The State of Natural Capital* report observes that, 'England has been gradually transferring the degradation of its own natural assets to those abroad' and 'indirectly, England continues to contribute to the global loss of natural capital, such as the destruction of rainforests, the reduction in supplies of clean water, and the depletion of marine resources.'⁵⁴

The stakeholders at the forefront of valuing natural capital in developing countries are mostly expert bodies such as academics, non-governmental organisations (NGOs) and consultancy firms.

This is to be expected since some of these actors have been advocating for valuation of natural capital for several decades (see Box 2). The Natural Capital Project brings together the Institute on the Environment at the University of Minnesota, The Nature Conservancy, WWF and the Woods Institute for the Environment at Stanford University. The project promotes the use of economic valuation tools in countries such as China, Tanzania and Colombia.⁵⁵

At the inter-governmental level the World Bank has coordinated the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) partnership since 2010.⁵⁶ Other examples include Dow Chemical and The Nature Conservancy valuing the impact of operations in Brazil, while Rio Tinto is working with the International Union for Conservation of Nature to assess the biodiversity value of forest conservation projects in Madagascar.⁵⁷ The influential World Business Council on Sustainable Development (WBCSD) has a range of case studies from around the world where companies are putting valuation into practice.⁵⁸ There is now an increasing number of companies expressing interest in valuing their supply chains.⁵⁹ It is important to point out that there is not yet consensus on how to do economic valuation and that this has slowed the uptake of natural capital (see Appendix 2).⁶⁰

A review of these initiatives shows that the majority are focused on monetary valuation. The WBCSD's *Guide to Corporate Ecosystem Valuation* recognises there are qualitative, quantitative and monetary ways to value and that it's not always possible to 'quantify or monetize each and every ecosystem value'. The guide argues monetary valuation 'provides a particularly important means of aggregating, comparing and communicating different ecosystem service values'.⁶¹ In practice the actors who are already valuing nature in the global south are focusing on monetary values to make a convincing business case (see the interviews for opinions on how a convincing business case needs to be made). They might want to highlight the trade-offs⁶² of government economic policy in areas like infrastructure and think that the best way to do this is with monetary figures. Having said that, it's important to keep in mind that a factor that affects if economic valuation is carried out is the decision-making context. For example, it might not be necessary to do a monetary valuation at all if a business case can be made without it (see Appendix 2).

Another key reason could be that a company or government wants to be able to participate in new markets. *The Guide to Corporate Ecosystem Valuation* explains that monetary valuation 'can help to scope out and plan for a company's involvement in new ecosystem markets and revenue streams (eg, biodiversity offsets, carbon credits and watershed payments)' by valuing the natural assets they could trade.⁶³

Arguably, nature is already being priced through payments for environmental services schemes (also referred to as payments for ecosystems services). These cover a variety of arrangements whereby payments are made to protect or restore nature's functions. The role of the public sector is crucial because it provides the demand for, and has historically been the main buyer of, ecosystem services.⁶⁴ Under public schemes governments subsidise the preservation of the environment that is protected under public policy. For example, for nearly 20 years the Costa Rican Government has paid private landowners to protect forests; this has helped to increase forest cover dramatically, conserve wild species and regulate river flows.⁶⁵

As PES schemes entail a payment for the 'services' between a buyer and a provider,⁶⁶ it means they are almost always based on a monetary valuation of nature. To date, the vast majority of existing PES initiatives in developing countries base payment levels on existing funds for the scheme or transaction costs of participating – rarely or never on the value of the ecosystem service itself. The implicit assumption is that, regardless of knowing the value of the ecosystem service, the fact that groups (such as farmers) are willing to participate is an indicator of the value of its provision. Payments take many forms including cash and in-kind rewards to individuals or groups.

From a brief review of these initiatives in developing countries it seems that the actors usually involved in agreeing on payment levels are governments (which as mentioned above are historically the main buyer) and expert bodies including academic institutions, conservation NGOs and consultancy firms.⁶⁷ When communities live in an area where a PES scheme is in place, it appears they are sometimes involved in the implementation of the project but not in deciding what payment levels should be.

INTERVIEW E: Professor Giles Atkinson, member of the Natural Capital Committee

The Natural Capital Committee was setup in 2012 as an independent advisory board to the UK Government.

Who should/should not be involved in valuation?

It is important to appreciate that valuing nature (or any other goods and services that are not traded in markets) is not simply about 'assigning' a value or discovering 'the' value of some change in it. Economic valuation is about trying to understand and quantify preferences for environmental changes versus something else that may enhance (or reduce) wellbeing. Ideally, this would reflect the values held by everyone affected by the goods and services provided by nature. This could be all those citizens within a country. Plausibly it could be people living elsewhere too. The important thing is that values do not reflect special interests to the exclusion of other parties who should count in decision making.

How do you think different stakeholders will value nature?

Stakeholders are likely to be interested in trying to value natural capital in ways which are most useful to their organisation's purpose. For example, for the private sector, taking account of the natural capital they own or are responsible for could help them manage their operations more efficiently or sustainably, which could have both economic and corporate social responsibility benefits. Government is likely to take a wider perspective, thinking more in terms of how changes in natural assets affect societal wellbeing. Local communities are perhaps less likely to use monetary estimates of the value of nature, giving greater weight instead to other cultural aspects that currently do not lend themselves easily to quantification.

Find out more: Natural Capital Committee.⁶⁸

HOW DO OTHER STAKEHOLDERS VALUE NATURE? NON-MONETARY APPROACHES TO INTRINSIC VALUES

As backing for the natural capital approach grows an area that is not getting enough attention is how other stakeholders value the environment (see Box 1 on the different ways to value nature). For example, what values do the millions of indigenous peoples⁶⁹ who live in some of the most precious areas of biodiversity in the global south use? This is a crucial question because, according to the Global Environment Facility, 'traditional indigenous territories have been estimated to cover up to 24% of the world's land surface and contain 80% of the earth's remaining healthy ecosystems and global biodiversity priority areas', which are under serious threat 'due to economic development pressures and climate change'.⁷⁰ In many cases, the reason ecosystems remain healthy is because of the way they have been managed by local indigenous communities. This has led the Convention on Biological Diversity⁷¹ and the World Bank⁷² to recognise that indigenous peoples play a critical role in conserving biodiversity.

Throughout the world indigenous peoples value the environment based on strong spiritual connections to their territories. For example, in the Niyamgiri hills in India the local Dongria Kondh indigenous community successfully resisted a proposed bauxite mine because of the spiritual value they placed on the area, referring to the hills as their God and soul. India's courts ruled in favour of the Dongria Kondh in their case against the British mining company Vedanta in January 2014.⁷³

Does indigenous people's special connection with nature mean they are more likely to apply non-monetary values to the environment? It's important to understand that indigenous views on nature are not always directly compatible with ideas on valuation from conventional economic theories – such as those underpinning the methodologies in Appendix 2 designed

around personal utility – because they are often based on reciprocity and communal land use of the commons.⁷⁴ Indigenous peoples stress that access to, and use of, resources within their territory is the fundamental basis of their livelihoods and cultures.⁷⁵ While there is a wide diversity of indigenous peoples around the world, their traditional economies are often based on common principles of sharing, reciprocity and living in harmony with the local environment. This viewpoint sees humans as being part of nature (see Interview F with Joan Carling). This makes them much less likely to value nature based on economic concepts that focus on maximising individual self-interest and that separate humans and nature (through concepts such as marginal willingness to pay and differentiating between public and private goods).

This different perspective on recognising nature's value saw hundreds of indigenous peoples from around the world reject natural capital in a declaration during the United Nations Sustainable Development Rio+20 summit: 'Mother Earth is the source of life which needs to be protected, not a resource to be exploited and commodified as "natural capital". The Green Economy is nothing more than capitalism of nature; a perverse attempt by corporations, extractive industries and governments to cash in on Creation by privatizing, commodifying, and selling off the Sacred and all forms of life and the sky, including the air we breathe, the water we drink and all the genes, plants, traditional seeds, trees, animals, fish, biological and cultural diversity, ecosystems and traditional knowledge that make life on Earth possible and enjoyable.'⁷⁶

INTERVIEW F: Joan Carling, Asian Indigenous Peoples Pact. Member of the United Nations Permanent Forum on Indigenous Issues

Founded in 1988 the Asian Indigenous Peoples Pact has 47 members from 14 countries in Asia. It is based in Thailand.

Explain why you think nature should/should not be valued?

Nature should be valued not only in terms of money/commercial use, but also in terms of spirituality, culture, identity, livelihoods, humanities' wellbeing and life support.

Who should/should not be involved in valuation?

All stakeholders should be involved and the different perspective and views of nature should be accounted for and respected, not just the monetary and commercial values of nature.

How do you think different stakeholders will value nature?

Valuing nature should account for the different 'values' in terms of both material and immaterial values of nature. It should account for the common good and for equitable benefits and use. This is especially important for those who depend on nature in terms of their distinct and sustainable lifestyles ie, indigenous peoples.

Does a successful business case require a monetary value to be placed on nature?

Making a business case of nature is already skewed if the aim is to generate profit. Instead, nature should be valued as humanities' life support system that needs to be used, managed, protected and conserved to meet the objective needs of humanity in a way that also provides for future generations. While it may be useful to put a price tag or monetary value to certain elements, it should not be for business as usual in terms of exploiting nature for the profit of companies. The focus should be on how nature is used in an equitable manner – addressing the needs of the poorest of the poor, and balancing equity as opposed to creating more gaps between the rich and poor countries, and individual citizens. The use, management, utilisation and conservation of nature should not be put in the hands of corporations and corrupt states; it should be in the hands of peoples who know the real value of nature beyond monetary terms.

Find out more: Overview of the state of indigenous peoples in Asia.⁷⁷

INTERVIEW G: Davi Kopenawa Yanomami, a leading shaman and spokesman for the Yanomami people who live in the rainforests of northern Brazil and southern Venezuela

He has fought to protect Yanomami lands from illegal gold mining, among other threats, for more than 30 years and has been called the 'Dalai Lama of the rainforest'.

Explain why you think nature should/should not be valued?

Today, the white man has taken a long time to think about and realise the importance of nature. Many trees have been chopped down in my country in the meantime. We, the Yanomami and other indigenous peoples in Brazil have always talked about our nature which is the basis of our culture. The forest gives us life. We value the forest, and for us, the forest is priceless. The forest and mountains have a lot of spirit, wisdom, knowledge, wealth, culture and health.

The white man and governments think in a different way. They just see the trees as a market and something to be sold. They see it for the fruits it provides like cocoa, acai and chestnuts. What is left of the forest he thinks he can protect in a small area with which to survive.

The white man invented money as a type of material. Men focus on money and buying things like land, cars, planes, food, clothes, shoes and machines. Money comes and goes like the wind.

For us indigenous peoples money has no value. It is only valuable to the white man because it's their custom. They want more and more money. This is why they are destroying nature. They are always looking for more wealth like oil.

Who should/should not be involved in valuation?

Nature belongs to indigenous and non-indigenous peoples. The people who should value the forest are indigenous peoples because they have a long-held understanding and knowledge of the forest. We are the owners of the forest. It is crucial for indigenous peoples to be able to use nature's wealth. We are the ones who should use the fruits of the forest along with parrots, toucans, monkeys and other animals.

Today, the white man is crazy for money. The white man destroys nature for money because he does not value or respect the environment. It is important for everyone who uses nature to understand the spiritual importance of trees, rivers, lakes etc. Today, many people are talking about climate change. The earth is getting hotter. There needs to be a reduction in pollution. I call on non-indigenous peoples to listen to us and learn from us.

Find out more: [Survival International background on the Yanomami.](#)⁷⁸

3. Who should value nature and whose values will carry more weight?

Because existing valuation methods are complex, their use tends to be monopolised by 'experts'. The academics, NGOs and consultancy firms currently valuing natural capital in developing countries are using methodologies based on total economic value which are geared towards (degrees of) monetary valuation of use and non-use values (see Box 1).

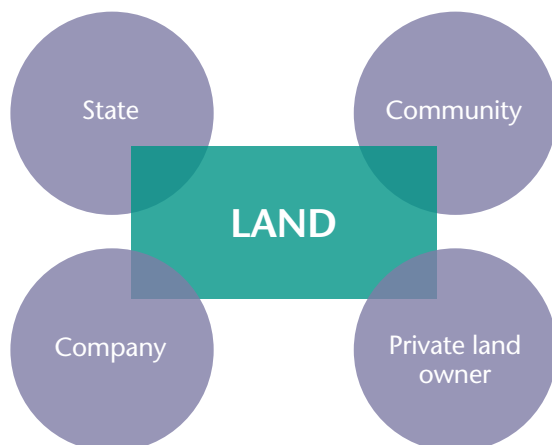
But as the views of indigenous peoples illustrate, there are stakeholders who **only** apply non-monetary values to **all** their interactions with the environment based on nature's intrinsic value as the source of life (regardless of whether these are classified as use or non-use values under the total economic value concept). Given there are tensions between the diverse ways to value nature in developing countries, what should determine whose values carry more weight?

One starting point is to determine which stakeholders are involved by focusing on a clearly defined area based on common characteristics such as land use, land cover or ownership.⁷⁹ Property rights don't have to be the basis on which to decide who should value (and there are limitations to this approach⁸⁰), but if they are then it matters who owns the land being valued. There may be scenarios where it does not matter greatly that stakeholders value nature differently because they 'own' different areas of nature. For example, if stated preference techniques – ie, when asking for willingness to pay for a particular change to the environment (see Appendix 2) – are used to value the answers will clearly depend on who is asked.

But the reality in the global south is that land rights are not clearly defined,⁸¹ and so it is likely that there are going to be scenarios where different stakeholders make claims to value the **same ecosystems**. For example the Rights and Resources Initiative has found that in 33 developing countries – that represent 85% of forests in low and middle income countries – land rights are heavily contested between states, indigenous peoples and local communities, and private firms and individuals. In 2013 governments held 93% of statutory recognition of forest tenure in Africa, 61% in Asia (another 36% linked to indigenous peoples and 2.5% privately owned) and 43% in Latin America (another 39% linked to indigenous peoples and 18% owned privately).

There are also significant overlaps between forest, mineral, agricultural, oil and gas concessions with indigenous lands.⁸² In sub-Saharan Africa it's estimated that around 90% of land is untitled. The result is that for many communities which have historically lived there they have no legally recognised land titles.⁸³ This is particularly the case for millions of indigenous peoples who often lack official land titles,^{84,85} and who, as mentioned above, live in some of the most bio-diverse areas in the world that are under threat. Unclear land tenure has been a major obstacle in implementing pilot projects to reduce emissions from deforestation in developing countries (see Box 6).

CONTESTED LAND RIGHTS: WHO 'OWNS' NATURE IN THE GLOBAL SOUTH?



Source: Why Green Economy?

Box 4: Learning from REDD+: Contested land rights. Natural capital rights?

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a component of the UN climate change negotiations. REDD+ aims to create a financial value for the carbon stored in trees, making it more valuable to keep forests standing than to log them. Under the REDD+ mechanism developing countries would receive funding to maintain their forests.⁸⁶ Several trends in the design and implementation of REDD+ projects are useful for thinking about who should be involved in valuation. The main one concerns who holds property rights over forests in developing countries. REDD+ contracts are based on there being an owner of the land where the project is situated, so that carbon captured by the forest can be monitored, reviewed and verified.

To date the implementation of REDD+ has been delayed and made more complicated by a lack of clear land tenure in developing countries.⁸⁷ The land tenure of indigenous peoples is particularly contested with many states not recognising the rights of indigenous peoples living in their territories.⁸⁸

This debate on who has ownership, especially in relation to indigenous peoples, is now also extending into who owns 'carbon rights'.⁸⁹ Many states in the global south claim ownership of the resources below ground as well as on the surface. This also applies to indigenous territories.⁹⁰ This raises the question about who would hold potential natural capital rights.⁹¹

WHOSE VALUES WILL CARRY MORE WEIGHT?

Let's imagine there are scenarios where different stakeholders who claim ownership of the same area agree on how to value an area applying monetary and/or non-monetary values. This is a possibility and you would imagine that where there is consensus, the project to value the environment would stand a good chance of long-term success in terms of being seen as a legitimate initiative that has taken into account the perspective of all stakeholders.

But what happens if they don't and there is a fundamental difference in how several stakeholders want to value the same area of land? What happens if an indigenous community does not agree with the monetary valuation of their forests by a paper company and instead prioritise non-monetary values based on their spiritual connections to their ancestral territories? What happens if a developing country's government disagrees with a company it has granted a concession to, or with the communities who live in bio-diverse areas? An International Institute for Environment and Development briefing estimates that the global 'commons'⁹² in developing countries, including 'much of the world's forests, wetlands and rangelands', support 'up to two billion mostly poor and rural people and hold a large proportion of the world's biodiversity'.⁹³ How do we decide who should do the valuing and whose values are taken into account? Which stakeholders have the power to limit valuation to non-monetary values or to extend it to monetary values? **Who has the power to decide which value is placed on these bio-diverse areas? Who is 'right' and who is 'wrong'?**

What these questions reveal is that it matters **which** stakeholders are valuing an area and what methodology they **choose** to use because this will influence whether they place monetary and/or non-monetary values on an area.

If property rights are used to work out who should value, then depending on which stakeholder owns the land it could lead to different values. The graphic below is purely to illustrate the point and generate discussion. Clearly the real world is never so black and white. For example a government or environmental NGO may apply non-monetary recreational values to a national park. Or an indigenous community might want a monetary valuation to use an economic argument to prevent the construction of a road through their territory.

WHO DOES THE VALUATION MATTERS: POSSIBLE SCENARIOS OF HOW DIFFERENT STAKEHOLDERS WOULD VALUE NATURE

Who you are influences the methodology you use	The methodology you use influences which values you get ie, monetary or non-monetary
Consultancies, specialist companies, academics and environmental NGOs (Often hired by a company or government)	Choose methodologies that will establish a business case = more likely to apply monetary values (Decision making context will influence methodology used – see Appendix 2)
Indigenous community	Choose methodologies that ask community how value = more likely to apply non-monetary values

Source: Why Green Economy?

INTERVIEW H: Yoni Rivas, General Secretary, Movement of Unified Farmers in Aguán

The Movement of Unified Farmers of Aguán is a coalition working to defend land and human rights in the Aguán valley in Honduras.

Explain why you think nature should/should not be valued?

The added value of natural wealth should benefit local communities and indigenous peoples. If it doesn't then valuation should not happen because it would be a land grab.

Who should/should not be involved in valuation?

Farmers and indigenous peoples should be involved in valuation. Private banks, companies and international organisations like the World Bank and IMF should not.

FUTURE RESEARCH

It's clearly difficult to predict how the valuation of the environment as natural capital will play out as there is no certainty yet on how it will evolve and be implemented. So at this stage there is simply a range of discussion questions that require further research and consideration. They include the following.

- **Values and trading:** it would be interesting to explore what the connections are between certain types of valuation and what happens afterwards. For example, if we start putting monetary values on nature, will this lead to new markets to trade environmental services?⁹⁴ If non-monetary values are used does this mean that trading would not be possible?
- **Changing values (and prices):** if there is a change in land ownership through consent (commercial deals or voluntary transfer) or non-consent (land grabbing), would this lead to changes in the values placed on an area of biodiversity because different stakeholders are involved?
- **Green grabs:** there is already a growing trend of land being grabbed in Africa, Asia and Latin America for 'green' purposes such as biodiversity conservation, biofuels, carbon offsets and REDD+.⁹⁵ This is happening particularly in developing countries with 'weak governance and poor legal protection of customary land rights'.⁹⁶ If valuing nature raises economic rents for land areas,⁹⁷ will this lead to green grabs?⁹⁸ (see Interview H with Yoni Rivas).
- **Low valuation:** if a stakeholder doesn't want 'their' environment to become more valuable in monetary terms, could they have an incentive to lower the valuation? For example, a stakeholder may wish to pay less for ecosystem services. Or an indigenous community may want to ensure their land is worth less so that it is not bought (or grabbed from them) because it is suddenly more valuable.

CONCLUSIONS

It is currently expert bodies such as academics, NGOs and consultancy firms which are valuing nature as natural capital in the global south, using a certain group of valuation methodologies, that tend to focus on monetary valuation. As the perspectives of indigenous peoples illustrate, there are other ways to value such as non-monetary values based on nature's intrinsic value. Some groups strongly reject monetary valuation completely.

With debates raging fiercely on **whether** and **how** nature should be valued it might seem better to postpone the question of who values for now. But because valuation might be undertaken differently by different stakeholders it's crucial to think about how the process would play out in practice as this directly informs current debates on whether and how it should happen (see interviews and Appendix 1). It is particularly important to explore these questions in developing countries where the environment is under intense pressure to be destroyed.

Exploring who should value nature in the real world context of developing countries reveals that contested land rights in bio-diverse regions mean there could be different valuations (monetary or non-monetary) by diverse sets of stakeholders for the same ecosystems. It matters **which** stakeholders are valuing an area and what methodology they **choose** to use because this will influence whether they place monetary or non-monetary values on an area. This raises questions about whose values will carry more weight. Which stakeholders have the power to limit valuation to non-monetary values or to extend it to monetary values? Who has the power to decide which value is placed on these areas? Who decides who is 'right' and who is 'wrong'?

Appendix 1: Interview sample and author comment

The eight respondents were chosen based on their expertise in the field of valuing nature and their prominence as advocates or critics of natural capital. The respondent's answers are included as verbatim quotes. The answers included are extracts from their full interviews. Where there are edits this has been for length. The full answers are available on the Why Green Economy? website: whygreeneconomy.org

Each respondent was asked the same questions and sent the same request between May–July 2014 as detailed below.

As you know the concept of natural capital is being heavily debated. The main focus is on if and how natural capital valuation will take place. My report will complement these debates by asking questions about who should value nature and what the consequences are of this eg, should it be governments, accountants, business and/or indigenous peoples who value nature?

There are of course different interpretations of the concept 'value'. These range from the understanding that nature has an intrinsic value (which is often seen as being non-monetary), to value in concrete monetary figures. Where I refer to value in the first three questions this could be monetary and/or non-monetary values. Feel free to answer the questions as you interpret them.

- 1 Explain why you think nature should/should not be valued?
- 2 Who should be involved in valuing nature in your country? Who should not be involved? For example, government, accountants, business, indigenous peoples ...
- 3 How do you think different stakeholders including governments, companies, and indigenous peoples will value nature? For example, are certain stakeholders more likely to use monetary or non-monetary values?
- 4 To make a successful business case to protect nature do you think a monetary value has to be placed on nature? Would a non-monetary value be as effective?

AUTHOR COMMENT ON INTERVIEW PROCESS AND ANSWERS

Approach: As this is such a controversial issue I was keen to provide a space for actors to present and explain their own views. This was for two main reasons. Firstly, the approach of my website whygreeneconomy.org is to facilitate a space for a diverse range of voices on issues related to the green economy. The increasing interconnectedness of our world and fast evolving geopolitics means it is essential to listen to perspectives from around the world and from different levels eg, from governments to grassroots communities. As a London-based researcher I needed to hear what key stakeholders who work in this area had to say. Secondly, because of the exploratory way I chose to approach the subject area I felt it was best to separate my own ideas from those of others.

Interview sample: I carefully selected the people interviewed to try and get across different perspectives in terms of pro/rejection of natural capital valuation and from several geographic regions. It was particularly important to have opinions from actors working in the global south as this is the focus of the report. With only a few people interviewed there are of course other perspectives that are not included. My hope is that the publication of this report will facilitate these different voices to debate who should value nature.

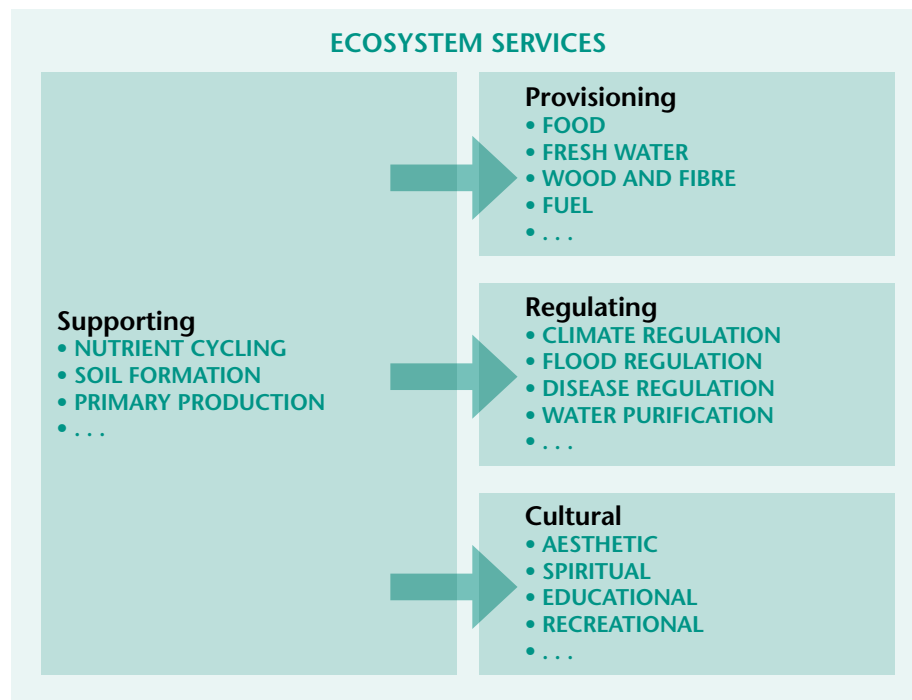
Process: Several of the people interviewed found the questions confusing because concepts such as valuation can be interpreted in many ways (see Glossary and Box 1). This confusion is revealing in itself as it shows how contested the main concepts are (eg, valuation, natural capital) and how the conclusions you get can be very different depending on who is asked.

Interview answers: I believe the diverse answers illustrate the main tensions in these debates and that there is no 'correct' answer to the question of who should value nature. This is why the approach of this report is to explore key questions rather than provide definitive answers. Many of the answers confirm the key assumptions of this report that various stakeholders (they refer to governments, companies, private banks, international organisations, indigenous peoples, local institutions, communities) are likely to value nature differently, and that this will have different outcomes.

Appendix 2: How do you make a business case? Methodologies for valuing nature

For an explanation of each methodology and discussion of their advantages and limitations see the TEEB synthesis report published in 2010.⁹⁸

Examples of ecosystem services



Source: Millennium Ecosystem Assessment, 2005.

Market valuation approaches calculate the value of ecosystem services based on existing market prices (eg, food and fuel) or on the cost of replacing or restoring an ecosystem after it has been damaged. For example, a study estimated that leaving mangroves intact in Thailand has a value of \$21,456 per hectare because of their contribution to coastal protection from storms, fish habitats and carbon sequestration, compared to a value of \$10,649 if they are converted for shrimp farming⁹⁹ (see Interview E with Giles Atkinson).

Limitations: market prices could be distorted eg, by subsidies. If there is no market for the ecosystem service or for the goods/services that are indirectly related then there is nothing to base valuation on. Using market values to make judgements disproportionately reflects the views of those with greater spending power.

Revealed preference techniques calculate values based on people 'revealing' their preferences through their choices. There is the travel cost method eg, the amount of money visitors spend to visit a national park. Another way to do it is the hedonic pricing method eg, impact of clean air and natural beauty on property prices.¹⁰⁰

Limitations: market distortions can mean the wrong monetary values for ecosystem services are being used as a reference. Technical assumptions are made about the link between the ecosystem service and the surrogate market good. Using market values to make judgements disproportionately reflects the views of those with greater spending power. This technique does not fully capture non-use values (see Box 1).

Stated preference techniques ask people what value they place on ecosystem services eg, using surveys to state their willingness to pay for a particular change to the environment.¹⁰¹

Limitations: results dependent on who is included in sample. Respondents have insufficient knowledge and information. People's hypothetical answers might not truly reflect what they would think if the change was to happen in practice.

It's worth pointing out that to date there is no consensus agreement on how you go about valuing nature.¹⁰² This is why the Natural Capital Coalition is developing a natural capital protocol. They state that a 'key challenge currently is a lack of standardisation across how to value and account for natural capital so it can be applied in business'. The project will 'develop and pilot test the industry norms for valuing natural capital in business decision making to enable better measurement, management, reporting and disclosure'.¹⁰³

The decision-making context will determine if economic valuation is appropriate. As research done by Eftec for Defra explains, 'the economic value evidence provides one input to the decision-making process; its need and the level of accuracy required should be determined in conjunction with the overall policy context and other types of evidence (eg, scientific and technical and/or deliberative and participatory) that are also available'.¹⁰⁴

It's also important to point out that it is often consultancy firms which carry out valuations on behalf of companies or other stakeholders. So what matters are the methodologies the client who has commissioned them to do the valuation exercise wants them to use, and in the case of using state preference technique **who** they speak to.

The TEEB synthesis report acknowledges that 'the limitations of monetary valuation are especially important as ecosystems approach critical thresholds and ecosystem change is irreversible or reversible only at prohibitive cost'.¹⁰⁵ The report goes on to explain: 'non-consumptive use values, such as recreation or non-use values, which may include the spiritual or cultural importance of a landscape or species, have often been influential in decision making but these benefits are rarely valued in monetary terms'.¹⁰⁶

Appendix 3: The push for natural capital accounting and economic valuation

More and more companies,¹⁰⁷ as well as over 60 governments,¹⁰⁸ including the US, UK, Brazil and South Africa, are backing the natural capital approach. In Costa Rica a law has been drafted for the valuation of natural capital and integration of green accounting in planning for development which 'proposes that the country require environmental impact assessments to incorporate an economic valuation of the impacts that new infrastructure or economic development projects would have on natural capital'.¹⁰⁹ The Global Legislators Organisation (GLOBE) is tracking the evolution of natural capital accounting legislation in 21 countries.¹¹⁰

Key inter-governmental initiatives include the WAVES partnership coordinated by the World Bank since 2010. This receives funding from Denmark, the European Commission, France, Germany, Japan, the Netherlands, Norway, Switzerland, and the UK. The countries using this funding to test natural capital accounting at a national level include Botswana, Colombia, Costa Rica, Guatemala, Indonesia, Madagascar, the Philippines and Rwanda. The initiative works with central banks and ministries of finance, planning, and the environment on natural capital accounting to 'enable more informed decision making that can ensure sustainable growth'.¹¹¹

Several UN agencies participate in the partnership, including UNEP, UNDP and the UN Statistical Commission. The WBCSD has taken a leading role in bringing together information on different methodologies. It produced the *Guide to Corporate Ecosystem Valuation* in 2011 and *Eco4Biz* in 2013 which lists a range of methods for valuation with a particular focus on 22 tools.¹¹² The target users of these documents are broadly companies and business managers, consultants, public organisations, policymakers, academics, conservation NGOs, and in some cases development NGOs. Accountancy bodies such as ICAEW¹¹³ and the ACCA¹¹⁴ are also dedicating increasing resources to this area.

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