nfs
natural forest standard

Natural Capital

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eco
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Introduction

Natural Capital is the collective term for Earth's natural assets and the Ecosystem Services resulting from them, which make human life possible (Natural Capital Declaration, 2012). Ecosystem Services which result from Natural Capital form the foundation for all human economic activity and include food, water, energy, climate security and other essential services for everyone. Often, the value of Natural Capital can be forgotten in traditional methods which are used to measure economic performance (NCD, 2012). This failure to recognise the significance of Natural Capital ultimately has a detrimental effect on ecosystems, biodiversity and natural environments and can result in the loss of essential Ecosystem Services.

In addition to the production of goods, Ecosystem Services include life support functions, The Millennium Ecosystem Assessment (2005), divided Ecosystem Services into four categories:

- *Provisioning services*, or the supply of goods of direct benefit to people such as timber from forests or fish from the oceans, rivers and lakes.

- *Regulating services*, which are the range of functions carried out by ecosystems which are generally not given a monetary value in conventional markets. They include regulation of climate through the storing of carbon and control of local rainfall and mitigation of floods and droughts

- *Cultural services*, which do not provide direct material benefits, but contribute to wider needs of society, and to people's willingness to pay for conservation. They include the spiritual value attached to particular ecosystems or the beauty of landscapes that attract tourists;

- *Supporting services*, which are not of direct benefit to people but essential to the functioning of ecosystems and therefore indirectly responsible for all other services. For example the Purification of air and water.

The value of Natural Capital is becoming increasingly recognised as being critical to economic success and sustainability. Many policy makers and organizations have begun to focus on how value can be accurately attributed to Natural Capital and linked to economic policies.

"The expected outcome is better decision-making for managing, preserving and enhancing our natural environments. Moreover, identifying and quantifying Natural Capital and its ecosystem goods and services provide additional economic rationale for effective natural resources management" (International Institute for Sustainable Development, 2010)

As noted by both the Millenium Ecosystem Assessment(2003) and The Economics of Ecosystems and Biodiversity Initiative(2008), attributing value to Natural Capital and Ecosystem Services can be a positive step in preventing their depletion by promoting a better understanding of the true economic value of ecosystem services and to offer economic tools that take proper account of this value.

Recognising the Economic Value of Natural Capital

There are many risks and opportunities which stem directly from the use of Natural Capital, however its importance is often underestimated or taken for granted. This is further compounded because of the fact that many Ecosystem Services are difficult to quantify. This in turn means that Ecosystem Services and Natural Capital are not adequately considered as a part of decision making processes (UNEP, 2012).

In order for organisations to understand the importance of Natural Capital they must also understand the risks associated with its depletion. Operational risks can be increased beacuse of the scarcity and therefore increased cost of raw materials or higher insurance costs for disasters such as flooding, Similarly, penalties arising from new government policies such as taxes can give rise to regulatory and compliance risks. Being prepared for changes in the market can result in a competitive advantage being gained through developing new technologies, raw materials and processes that enable companies to reduce

resource intensity, reduce degradation and improve efficiency. Where companies are not willing to engage in the protection or of Natural Capital reputational risks can arise. (Grigg, A. *et al*, 2009)

Promoting awareness of Natural Capital and building knowledge on the subject is essential in ensuring its protection. The development of suitable valuation and valuation and risk management tools is also vitally important. As noted above, policy makers are increasingly emphasizing the importance of Natural Capital Accounting and positive steps are being taken. The Natural Capital Declaration signifies the commitment of the financial sector to incorporate Natural Capital considerations into their products and services for the 21st century.

"As members of the financial sector, we consider ourselves key stakeholders in future discussions about valuing and protecting Natural Capital and we recognize that we have a key role to play in the reforms needed to create a financial system that reports on and ultimately accounts for the use, maintenance, and restoration of Natural Capital in the global economy. However, we must do this in consultation with government and supported by appropriate legislation and regulation" (Natural Capital Declaration, 2012).

The declaration calls on governments to develop clear, credible, and long-term policy frameworks that support and incentivise valuation and reporting on the use of Natural Capital. The declaration recommends the following steps in achieving these frameworks:

1. Requiring companies to disclose the nature of their dependence and impact on Natural Capital through transparent qualitative and quantitative reporting;
2. Using enforceable fiscal measures to discourage business from eroding Natural Capital, while at the same time offering incentives to companies that integrate, value and account for Natural Capital in their business model;
3. Endorsing and implementing international agreements, including but not limited to, those agreed through the Convention on Biological Diversity;

4. Setting an example through requiring public spending and procurement to report and eventually account for its use of Natural Capital (Natural Capital Declaration, 2012).

At a national level steps are also being put in place to account for the importance of Natural Capital. Wealth Accounting and the Valuation of Ecosystem Services (WAVES) is a global partnership created to promote sustainable development through the incorporation of the value of natural resources into national accounts. The partnership is a combination of many UN agencies, governments, international institutes, non-government organisations and academics. A key objective of the partnership is also to develop standard approaches for ecosystem service accounts (WAVES, 2012). These measures can help bring Natural Capital accounting and ecosystem service valuation into mainstream practices.

"By working with central banks and ministries of finance and planning across the world to integrate natural resources into development planning through environmental accounting, we hope to enable more informed decision making that can ensure genuine green growth and long-term advances in wealth and human well-being" (WAVES, 2012).

REDD+ and Natural Capital

The Economics of Ecosystems and Biodiversity (TEEB) Initiative was established with the intention of generating awareness of the value of biodiversity and Ecosystem Services and facilitate the development of effective policy. TEEB acknowledges the role that REDD and REDD+ projects can have in maintaining Ecosystem Services because of positive impacts on biodiversity achieved through the conservation and restoration of forests.

"REDD and REDD+ have significant potential to also benefit biodiversity, since a decline in deforestation and degradation implies a decline in habitat destruction, landscape fragmentation and biodiversity loss" (TEEB, 2010).

While many policy makers are now taking steps to protect and value Natural Capital, communities that are in full control of their own resource base tend to promote the

sustainable use of resources and the conservation of biodiversity (UNEP, 2012). Such practices include limitations on harvest levels and protection of key resources (e.g., trees). These types of practices have developed because they serve the long term interests of the communities in question by ensuring the availability of sustainable resources. (UNEP, 2012)

Restoring the control and management of ecosystem resources to local communities may have benefits in terms of preserving ecosystems and providing higher quality goods and services. As local people often possess detailed knowledge of the local ecosystems they are often the best equipped for effective management, including monitoring human impacts on ecosystems. Supplying local people with resources and control over their own environments, and compensating them for maintaining and restoring biodiversity can be an effective way of taking care of these valuable ecosystems (UNEP, 2012).

Conlcusion

The importance of Natural Capital is becoming more recognised at both global and national levels. The risks associated with destroying Natural Capital are driving policy makers and institutions to assess its value and gain an understanding of it's importance in terms of providing valuable ecosystem services. Assesing the value of Natural Capital in economic terms presents a challenge which is now being addressed by groups such as The Natural Capital Declaration. The importance of the role of policy makers and global institutions cannot be underestimated in terms of devoping accounting mechanisms and generating knowledge about Natural Capital but it is also important to recognise the critical role of local communities in protecting it. REDD and REDD+ projects represnt a unique opportunity for Natural Capital to be protected at a very local level in correspondance with increased awareness and global accounting initiatives. Measuring impacts on biodiversity is also vital in the protection of ecosystem services.

The Natural Forest Standard presents a hollistic approach to REDD projects and a framework for protecting Natural Capital. The use of the Normative Biodiversity Metric is a unique tool which allows organisations to measure their impacts on biodiversity, therby minimising them and protecting vital ecosystem services. The NFS also aims to conserve and restore

natural forests through actions that benefit local communities and indigenous people. As noted by The United Nations Environment Program (2012), engaging with local communities and utilising their skills and knowledge can be a vital component in the protection of Natural capital.

References

Grigg, A., Cullen, Z., Foxall, J., Crosbie, L.,Jamison, L. and Brito, R. (2009)*The Ecosystem Services Benchmark. A guidance document.* Fauna & Flora International, United Nations Environment Programme Finance Initiative and Fundação Getulio Vargas. [online] Available at:http://www.naturalvalueinitiative.org/download/documents/Publications/EcoSysBenchmark.pdf [Accessed 15 October 2012]

Intenational Institute for Sustainable Development, 2010. *Natural Capital.* [online] Available at: http://www.iisd.org/natres/agriculture/capital.asp [Accessed 16 October 2012]

Millenium Ecosystem Assessment, 2003. *Ecosystems and Human Well-being: A Framework for Assessment.* [Online] MA and Island Press. Available at: http://pdf.wri.org/ecosystems_human_wellbeing.pdf [Accessed 18 October 2012]

Natural Capital Declaration, 2012. *The Declaration.* [online] Available at: http://www.naturalcapitaldeclaration.org/the-declaration/ [Accessed 10 October 2012]

TEEB, 2008. *International Payments for Ecosystem Services (IPES) and Reducing Emissions from Deforestation and Forest Degradation (REDD)* [online] Available at: http://bankofnaturalcapital.com/2010/12/15/international-payments-for-ecosystem-services-ipes-and-reducing-emissions-from-deforestation-and-forest-degradation-redd/ [Accesed 15 October 2012]

United Nations Environment Program, 2012. *Valuation of Ecological Services and Natural Capital.* [online] Available at: http://www.unep.or.jp/Ietc/Publications/Freshwater/FMS7/11.asp