

Natural Capital and the Natural Forest Standard Author: Eimear Dempsey







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 including food, water and energy. 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.

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).

There is increasing awareness of the importance of protecting our biodiversity and ecosystem services and many initiatives are being set up in order to do so. As noted by both the Millennium Ecosystem Assessment (2003) and The Economics of Ecosystems and Biodiversity Initiative (2008) placing a monetary value on natural ecosystems is a key step on the road sustainable economic growth and taking appropriate measures to protect it. By doing this, countries can develop policies that ensure current development does not jeopardise future growth potential, by destroying the world's natural capital.

However, Natural Capital is a complex myriad of ecosystem services and these services are not always easy to quantify. For example it may be difficult to attribute an economic value to the role that a tree plays in preventing flooding. Climate regulation also comes under title of Natural Capital and with the effects of climate change becoming increasingly apparent the cost of degrading our natural capital is also becoming clearer.

According to De Groot et al., there is a "limited understanding of: a) how different services are interlinked with each other and to the various components of ecosystem functioning and the role of biodiversity; b) how different human actions that affect ecosystems change the provision of ecosystem services; c) the potential trade-offs among services; d) the influence of differences in temporal and spatial scales on demand and supply of services; and e) what kind of governance and institutions are best able to ensure biodiversity conservation and the sustainable flow of ecosystem services in the long-term" (2010, pp 4.)







The Natural Forest Standard and Natural Capital

Bringing Natural Capital accounting into the mainstream is a difficult task due to its complexity but this is one measure that will aid the protection of Natural Capital. REDD+ programs also present a valuable protection mechanism for the Natural Capital which exists within the world's forests. Biodiversity is a vital component of many ecosystem services and many REDD project areas likely to have high ecological significance. By protecting forests, whole ecosystems are also preserved and natural capital protected. 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 and REDD+ projects can have in maintaining Ecosystem Services because of positive impacts on biodiversity achieved through the conservation and restoration of forests (TEEB, 2008). REDD+ projects can potentially offer unique insights into complex ecosystems and their various dependencies and interactions through an increased in knowledge of these areas.

REDD+ projects can also provide biodiversity conservation as an additional benefit for mitigation and development. Because of the integration of multiple benefits, REDD+ delivers a unique opportunity for the protection and enhancement of Natural Capital. (Sukhdev et al. 2012) "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)

The United Nations Environment Program (2012) notes that 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. 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).

The Natural Forest Standard (NFS) aims to conserve and restore natural forests through actions that benefit local communities and indigenous people. In addition to avoiding emissions the NFS offers a framework for the protection of a range of other ecosystem services including provisioning, cultural and regulating services. It is essential that projects do not have negative impacts on people living within project areas or on those that have land use rights, and that the needs, rights and interests of these people are recognised by the project developments. By protecting the rights of local people and using their skills and knowledge to enhance Natural Capital, the Natural Forest Standard is a strong framework







for protection. The Natural Forest Standard strives to achieve a balance income growth, jobs and equity which is necessary for truly sustainable development. (Sukhdev et al. 2012).

The use of The Normative Biodiversity Metric (NBM) by the NFS offers a unique opportunity for projects to measure their impacts on biodiversity. The Normative Biodiversity Metric provides project developers with an innovative methodology which can be used to improve understanding of their impacts on biodiversity. The NFS states that projects should result in no net loss of biodiversity which is essential in order to protect the Natural Capital within project areas.

"The intermediate service role of biodiversity is set out in the organisation and operation of ecosystems, while the final service role is linked to cultural, spiritual, option and bequest values that are significant human benefits. Many goods and services provided by biodiversity have characteristics of public goods. This usually means that individuals acting in their own self-interest will under-provide for its conservation and incentives need to be offered." (Turner & Daily, 2008)

Conclusion

There is an increased focus on attributing a monetary value to Natural Capital in order to incentivise its protection. While natural capital accounting is coming into the mainstream with the signing of The Natural Capital Declaration there are also benefits for Natural Capital resulting from REDD+ projects. The integration of carbon, social and ecosystem benefits in these projects will help ensure the effective protection of Natural Capital.

The NFS incorporates all of the components that are vital in protecting Natural Capital. Carbon, Biodiversity and Social benefits are accounted for under the standard making it a holistic approach to the conservation of Natural Capital. Biodiversity is key component of Natural Capital and finding effective ways of protecting it are vital. The use of the NBM is unique to the standard and offers project developers a solid methodology to ensure no net loss of biodiversity within their project areas.

The NFS also focuses on the protection of local communities and indigenous people. By ensuring that projects protect and benefit local communities a balance between income growth, jobs and equity which is necessary for truly sustainable development can be achieved. This is also an effective way of protecting Natural Capital as noted by the UNEP (2012) which states that using local knowledge and resources is the most effective means of protecting Natural Capital





<u>References</u>

Parker, C., Cranford, M., 2010. Little Biodiversity Finance Book. Global Canopy Programme:Oxford

De Groot, R., Fisher B., Christie, M., 2010. Integrating the ecological and economic dimensions in biodiversity and ecosystem service valuation. The Economics of Ecosystems and Biodiversity Initiative.

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

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

Natural Capital Declaration, 2012. *The Declaration.* [online] Available at: <u>http://www.naturalcapitaldeclaration.org/the-declaration/[Accessed 10 October 2012]</u> Pushpam Kumar, 2010. The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations Environment and Development Economics: Earthscan, London.

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]

Turner, A & Daily, R.K.A 2008. The Ecosystem Services Framework and Natural Capital Conservation. Environmental and Resource Economics. Springer: Netherlands pp.25-35.

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