SHORT COMMUNICATION: RECOMMENDATIONS FOR STANDARDISING REPORTING OF SITE-BASED ECONOMIC BENEFITS FROM PROTECTED AND CONSERVED AREAS

Sue Stolton[1*], Candice Stevens[2], Hannah L. Timmins[3] and Nigel Dudley[1]

* Corresponding author: sue@equilibriumresearch.com

[1]Equilibrium Research, UK and IUCN World Commission on Protected Areas
[2]Wilderness Foundation Africa and Sustainable Landscape Finance Coalition, South Africa
[3]Hannah L. Timmins, Bambang Consultants, Nairobi, Kenya

ABSTRACT

A new report from the Convention on Biological Diversity details 36 case studies highlighting tangible benefits which contribute to local livelihoods and conservation management costs from individual conservation areas worldwide. The study focuses on direct economic gains linked to biodiversity which do not undermine the area's conservation objectives. One unexpected finding from the research was the lack of standards for reporting the economic benefits and the wide range of reporting approaches encountered. This short communication provides a background discussion to the issue and makes recommendations relating to eight reporting procedures which could help provide clarity on the amount and distribution of site-based economic benefits. These could also aid attempts to compare, aggregate or help further understand the importance of these benefits from conservation initiatives. The paper is a contribution to ensuring equity of costs and benefits of conservation, the financial sustainability for conservation areas and for allowing successful initiatives to be undertaken at scale and into the long term.

Key words: benefit-sharing, resource-use, conservation finance, landscape finance

INTRODUCTION

A newly published study from the Convention of Biological Diversity (CBD) (Stolton et al., 2021) details 36 case studies from around the world highlighting tangible economic benefits from individual conservation areas (primarily from protected areas although equally relevant for other effective area-based conservation measures – OECMs). Many studies of total economic value rely heavily on theoretical or assumed values, for example over 90 per cent of the provisioning value of tropical forests being the presumed medicinal value of species growing there (De Groot et al., 2012). Conversely, the CBD case studies focus on direct economic benefits which contribute to local livelihoods and conservation management costs.

Linking conservation with a strategy for increasing local economic and social development can be a major incentive, along with other innovative finance mechanisms, for increased conservation and good management. Being able to report on these economic benefits effectively is a critical element of such incentives. However, the CBD study found a lack of consistent reporting on the assorted variables around economic return (e.g., type of income, period of income, relative importance of income). This note introduces the issue of local, tangible economic benefits from conservation areas which can contribute to both local livelihoods and conservation management costs followed by a brief discussion and recommendations for future reporting of such benefits, looking at both the amount and distribution of benefits, from site-specific initiatives. It aims to begin a conversation which will hopefully lead to more standardised reporting in the future, and thus allow collation of results at national, regional, global, biome or benefit level and allow more replicability of innovation.

BACKGROUND

There is an increasing literature on the global value of ecosystem services (Costanza et al., 1997; Kubiszewski et al., 2017; Dasgupta, 2021) and detailed studies on particular biomes, species, sites, countries and services. These studies have stimulated a rapid expansion of the

evaluation of natural capital. One early result was the establishment of The Economics of Ecosystems and Biodiversity (TEEB) initiative (ten Brink, 2011), which continues and has been applied at national and regional scales (Kettunen, et al., 2013). More recently, Natural Capital Valuation (NCV) has become popular (UFZ & WWF, 2020).

Although undoubtedly changing perceptions globally on the accounting of values and potential benefits of conservation, these large-scale analyses have failed to stimulate changes in approaches to land and water management on the scale needed to significantly slow the loss of biodiversity and ecosystem services. Moreover, the biodiversity finance gap continues to widen (OECD, 2020; Dasgupta, 2021).

There is, therefore, the need for a different kind of benefit assessment and valuation: not one that looks at the huge but still hard-to-realize values of all ecosystem services, but rather at the values that can either make money, or at least save identifiable amounts of money in the immediate term. Such benefits can support both local communities and conservation management and are referred to here as tangible economic benefits.

Demand for these kinds of assessment and valuation come from six different angles:

1. To build a stronger constituency for conservation and sustainable development by highlighting the economic value of biodiversity and other ecosystem services.
2. To justify the establishment and management costs of conservation areas by showcasing the returns from such investments compared with the returns from conversion to other uses.
3. To encourage investment of more public and private funds into conservation.
4. To contribute to conservation management costs.
5. To publicize existing economic benefits to communities living in or close to conservation areas, and to identify potential benefits that could be realized in the future.
6. To aid successful initiatives to be undertaken at scale and into the long term.

In particular, emerging debates about the implications of biodiversity conservation on local communities have led to important changes in perspective. Conservation organizations increasingly emphasise the need to stimulate flows of economic revenues from protected areas and OECMs to people living in or near these areas, who otherwise shoulder a disproportionate amount of the costs of conservation (Holden, et al., 2014; Howe et al., 2020). At their best, these initiatives provide forceful arguments for investment in conservation areas. They have helped to develop and progress markets for ecosystem services (such as clean water and carbon storage) which have resulted in some conservation gains and/or have eased the conservation funding gap. In a few cases, they have been the initial impetus behind conservation initiatives. At their worst, they have raised expectations of unrealized benefits, set back the achievement of an area's conservation objectives and started a trend to link conservation too closely to market forces or the rigidly utilitarian 'pay-to-stay' concept.

Any economic activities in protected areas in particular need to be established within a framework of safeguards, policies and standards to ensure they do not undermine conservation objectives or the rights of Indigenous peoples, local and other communities. Standards to ensure that benefits are equitably distributed are also important (Dudley et al., 2016); plenty of money-making schemes support a privileged minority rather than raising overall living standards. It is also important to ensure that any increase in income is not used as a pretext to decrease government support. Incentives to local managers and others supporting conservation areas for raising levels of income must include assurances that it will not lead to reductions of base financing for conservation or other aligned sustainable development initiatives.

While it is possible to combine conservation and economic development, and help ensure support for conservation, achieving a successful and sustainable balance is difficult. Some much-publicized opportunities have been slow to develop, including the carbon market which is still waiting for final agreement after more than a decade (Taskforce on Scaling Voluntary Carbon Markets, 2021). Some initiatives have been highly successful while others have either failed outright or faltered after a period, because resources have been over-exploited or social and economic conditions in communities have changed over time (Stolton et al., 2021). Other successful enterprises remain pilot concepts without achieving scale or are so specific to a particular place that they are impossible to replicate. Thus, moving from individual projects to mainstream application is often challenging (Mills et al., 2019).

Finally, it should be stressed that protected areas will rarely be capable of fully generating their own finances and will need support from governments, as well as private donors. Not all protected areas can, or should, supply economic returns with traditional profit yields. Many were set up because natural resources had declined due to mismanagement or over-exploitation,

Wool production in Península Valdés, Argentina © Ricardo Baldi, Cenpat-Conicet

others because the area is important for a range of vital benefits including biodiversity, cultural and ecosystem services. These benefits should not be assessed only by their ability to generate financial returns. Furthermore, as the current pandemic demonstrates, economic strategies such as tourism are subject to fluctuations and downturns, so that emergency funding streams will sometimes be required. Indeed, any over reliance on just one income generating activity is risky as is relying on one source of funding: fiscal or donation. Diversified income and funding streams are critical for the future resilience and sustainability of these areas.

RECOMMENDATIONS FOR REPORTING PROCEDURES FOR AMOUNT AND DISTRIBUTION OF SITE-BASED ECONOMIC BENEFITS

Economic benefits from conservation areas are far from guaranteed. Each context is unique and requires a tailor -made approach requiring analysis, planning, adaptive management and effective reporting. The recipients of this often varied income stream will also differ and could be for whole communities, specific sectors within communities, or focused more on providing conservation funding.

Although all contacts approached regarding the CBD case studies (Stolton et al., 2021) were happy to provide information on economic benefits, it soon became clear that it would be impossible to develop a standardised template or format for financial information, making attempts to compare, aggregate or really understand the importance of these benefits a challenge. For some initiatives there was also issues around competition and the disclosure of financial information.

Learning from this, we suggest below eight reporting areas and allied recommendations to help provide clarity on reporting of site-based economic benefits which support conservation initiatives. Planning the breadth of monitoring and reporting at the onset of initiatives would be a very useful exercise which these suggestions could also contribute to. Importantly, it is also clear that reporting financial success does not necessarily equate to project success, as, for example, social cohesion, publicity or conservation management may all be as important indicators of success as financial sustainability.

1. Gross or net

Gross is the total income before taxes and other deductions; net the income after deductions and taxes. When collecting data for the CBD case studies the researchers assumed that most of the reporting provided was for net income, but this was rarely made clear.

We recommend that reporting of economic benefits is consistently for net income.

Furthermore, clarity is needed about the calculations that determine gross to net income. Understanding the following seven points related to calculating net income assists both reporting and clarity when attracting further investment or incentives, and in reducing costs to be more resource efficient:

a. General expenses;
b. Extraordinary expenses (e.g., one-off expenses such as equipment);
c. Conservation related expenses;
d. Staffing (e.g., all employment related expenses);
e. Risk costs (including losses and related loss, administrative time);
f. Transaction costs (e.g., cost of bringing a good or service to market); and
g. Available tax deductions and incentives (tax efficiency is often overlooked as a tool to increase net income).

2. Return on investment

Another form of expressing economic benefits is through the return on investment; the money made or lost on an investment over a specified time. This can be presented as the ratio between net profit (over a certain

period) and cost of investment (resulting from an investment of some resources at a point in time). Some case studies reported significant, multi-year income but never achieved an overall profitable economic return, even if they supplied important local socio-economic benefits. This type of information is vital in understanding the viability of projects and potential for replicability.

We recommend that reporting includes return on investment after a specified period of years (e.g., 10 years).

3. Annual reporting

Most income was reported on a yearly basis (financial or tax year). The period became more confused for activities which are only carried out for short periods (e.g., seasonal fisheries or produce harvested). In some cases, even the year being reported was not clear.

We recommend reporting is consistently for annual income with the reporting period clearly defined (e.g., tax year, calendar year), even if the period of activity is for less than a whole year.

4. Income trends

Benefits from protected areas tend to be highly variable, due to conservation management, harvest fluctuations or demand. A close look at income trends forces entities and projects to evaluate income sources and take stock of any vulnerabilities. Many projects prefer to report on income trends over several years. This makes sense and should be encouraged if the timeframe reported is made clear and with annual reporting also carried out, as noted above.

We recommend reporting income trends with a clear indication of the time-period reported.

5. Sustainable resource use trends

Understanding economic benefits, and the conservation impact of these benefits, is much easier if the rate of resource use is provided. This varies widely from entry fees from tourists, tourist bed-nights, harvest of wild resources, agricultural products or fisheries, outputs of manufactured products (e.g., numbers of baskets, soaps, foodstuffs). As noted, this can be subject to conservation measures and seasonal fluctuations. Details of monitoring methods used to provide harvest trends and the format of measurements (e.g., kg, kg per km2, number of products) can help understand the economic benefits (and effectiveness of management) and should ideally be linked to monitoring plans for all elements of protected area management.

We recommend providing clarity of resource use in terms of annual resource use, trends and details of the method for monitoring and measuring resource use.

6. Distribution of benefits

Reports on benefit-sharing vary widely. Sometimes benefits are reported as per person, sometimes per household or even per village. The per household/village measure is particularly difficult to compare, as household numbers or village sizes can vary dramatically.

Similarly, the link between area and benefits needs to be clarified. Reporting benefits per hectare (ha) can be a good standard; but clarity is needed as to whether the whole area provides benefits as can be the case for tourism, or specific areas such as a watershed or where sustainable harvests take place.

We recommend splitting reporting between direct beneficiaries (e.g., the person receiving the income such as the handicraft maker or fisher) and associated beneficiaries (e.g., households with associated reporting of average household size).

We recommend standardising and providing clarity on any per ha measures used including the area being reported as well as the proportion of the protected area this represents.

7. Contribution of benefits to livelihoods

To understand the contribution of economic benefits to livelihoods it is important to know the socio-economic context. Some case studies reported the percentage of annual income the resource provides, which is useful, others provide little in terms of the relative importance of the economic benefit. Monetary values alone can mean very little given the disparities between income worldwide (e.g., average adjusted net national income per capita according to World Bank data ranges from over US$64,000 per year in Switzerland to under US$250 per year in Malawi).[1] Providing contextual information is thus important, as is using standardised data sources such as those provide by the World Bank.

We recommend that reporting includes information on the relative importance of benefits using internationally agreed data sources, ideally through indication of the percentage of annual income for direct and associated beneficiaries.

8. Contribution of benefits to conservation

Given the context of economic benefits from protected areas, many case studies also reported on the contribution of the incomes received being fed back into

protected area management (the same could be done for OECMs). In some cases, this contribution is a significant proportion of management costs. A clear way of indicating this contribution is by fully costing the protected area's management and reporting the percentage contributed by the economic benefit. This can show the management finance gap as well as the contribution of any economic benefits to effective management.[2] If management costs are not ring-fenced, then there needs to be a way to report on their benefit for the area as a whole. In addition, co-benefits can be added to the contribution to conservation beyond just the monetary assistance for management, such as business growth, additional employment, ecological infrastructure investment, etc.

We recommend reporting on the relative importance of benefits for covering conservation management costs, ideally through an indication of the percentage of annual income for protected area management as a whole, or for specific management activities.

CONCLUSIONS

We hope this short paper will help enhance the overall monitoring and reporting of conservation finance for and from protected areas and OECMs. Reporting the success of conservation initiatives will become increasingly important as the calls for more areas to come under conservation management increase. It is hoped that many more protected areas and OECMs will report on their methods and innovations to produce economic benefits where applicable to the area's conservation objectives, using initiatives such as IUCN's Panorama.[3]

We welcome comments on the above recommendations and how to further standardise this type of reporting.

Cocoa farmers getting ready for export, Gola, Sierra Leone © Bjorn Hogarth

ENDNOTES

[1] data.worldbank.org/indicator/NY.ADJ.NNTY.PC.CD
[2] See for example the BIOFIN approach www.biofin.org/sites/default/files/content/publications/workbook_2018/
[3] panorama.solutions/en

ABOUT THE AUTHORS

Sue Stolton is a partner in Equilibrium Research and a WCPA member; interests include management effectiveness and the wider values and benefits of protected and conserved areas.

Candice Stevens is Head of Innovative Finance, WFA and Chairs Africa's Sustainable Landscape Finance Coalition. She is Co-Chair of the IUCN WCPA Specialist Group on Sustainable Finance.

Hannah Timmins worked in landscape and tiger conservation in Indonesia for five years before moving to East Africa where she now specialises in protected areas, connectivity and forest conservation.

Nigel Dudley is an ecologist working in the fields of protected and conserved areas, restoration and landscape approaches to conservation.

REFERENCES

Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O'Neill, R.V.O., Paruelo, J., Raskin, R.G., Sutton, P. and van den Belt, M. 1997. The value of the world's ecosystem services and natural capital. *Natur*e 387: 253-260. doi: 10.1038/387253a0

Dasgupta, P. 2021. *The Economics of Biodiversity: The Dasgupta Review*. HM Treasury, London. https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review

De Groot, R., Brander, L., van der Ploeg, S., Costanza, R., Bernard, F. et al. 2012. Global estimates of the values of ecosystems and their services in monetary units. *Ecosystem Services* **1**: 50-61. doi: 10.1016/j.ecoser.2012.07.005

Dudley, N., Burlando, C., Cooney, R., Jones, S. and Kehaulani Watson, T. 2016. Draft principles for justice and equity in access to and distribution of benefits from ecosystem services in protected areas. In: Burlando, C., Te Pareake Mead, A., Marker Noshirwani, M., Seagle, C. and Kehaulani Watson, T. From Solutions to Resolutions: A New Social Compact for Just and Effective Conservation of Biodiversity, *Policy Matters* **20**: 41-54. https://portals.iucn.org/library/sites/library/files/documents/Policy%20Matters-Issue%2020.pdf

Holden, E., Linnerud, K. and Banister, D. 2014. Sustainable Development: *Our Common Future* Revisited. *Global*

Environmental Change, **26**, 130-139. doi: 10.1016/j.gloenvcha.2014.04.006

Howe, C., Corbera, E., Vira, B., Brockington, D. and Adams, W. 2020. Distinct positions underpin ecosystem services for poverty alleviation. *Oryx* **54**(3), 375-382. doi: 10.1017/S0030605318000261

Kettunen, M., Vihervaara, P., Kinnunen, S., D'Amato, D., Badura, T., Argimon, M. and ten Brink, P. 2013. *Socio-economic importance of ecosystem services in the Nordic Countries – Synthesis in the context of The Economics of Ecosystems and Biodiversity (TEEB)*. Nordic Council of Ministers, Copenhagen. Doi: 10.6027/TN2012-559

Kubiszewski, I., Costanza, R., Anderson, S. and Sutton, P. 2017. The future value of ecosystem services: Global scenarios and national implications. *Ecosystem Services* **26**: 289-301. doi: 10.1016/j.ecoser.2017.05.004

Mills, M., Bode, M., Mascia, M.B., Weeks, R., Gelcich, S., Dudley, N., Govan, H., Archibald, C.L., Romero-de-Diego, C., Holden, M., Biggs, D., Glew, L., Naidoo, R. and Possingham, H.P. 2019. How conservation initiatives go to scale. *Nature Sustainability* **2**: 935-940. doi:10.1038/s41893-019-0384-1

OECD. 2020. *A Comprehensive Overview of Global Biodiversity Finance*. Organisation for Economic Cooperation and Development (OECD). https://www.oecd.org/environment/resources/biodiversity/report-a-comprehensive-overview-of-global-biodiversity-finance.pdf

Stolton, S., Timmins, H. and Dudley, N. 2021. *Making Money Local: Can Protected Areas Deliver Both Economic Benefits and Conservation Objectives?*, Technical Series 97, Secretariat of the Convention on Biological Diversity, Montreal. https://www.cbd.int/doc/publications/cbd-ts-97-en.pdf

ten Brink, P (ed.) 2011. *The Economics of Ecosystems and Biodiversity in National and International Policy Making*. TEEB and Earthscan, London. https://www.researchgate.net/publication/236219248_The_Economics_of_Ecosystems_and_Biodiversity_in_National_and_International_Policy_Making

Taskforce on Scaling Voluntary Carbon Markets. 2021. *Phase II Report*. https://www.iif.com/Portals/1/Files/TSVCM_Phase_2_Report.pdf

UFZ and WWF. 2020. *Natural Capital in international environmental cooperation: Concepts and applications*. Report by UFZ – Helmholtz Centre for Environmental Research, Leipzig; WWF Germany, Berlin. doi:10.13140/RG.2.2.29668.60801

RESUMEN

Un nuevo informe del Convenio sobre la Diversidad Biológica enumera 36 estudios de casos en los que se destacan los beneficios tangibles que contribuyen a los medios de vida locales y a los costos de gestión en materia de conservación de las distintas áreas de conservación en todo el mundo. El estudio se centra en las ventajas económicas directas vinculadas a la biodiversidad que no socavan los objetivos de conservación del área. Un hallazgo inesperado de la investigación fue la falta de normas para informar sobre los beneficios económicos y la amplia gama de planteamientos con respecto a los procedimientos de información. Esta breve comunicación ofrece un análisis de las cuestiones de fondo y formula recomendaciones relativas a ocho procedimientos de presentación de informes que podrían contribuir a aclarar la cantidad y distribución de los beneficios económicos basados en las áreas. También podrían contribuir a los intentos de comparar, agregar o ayudar a lograr una mejor comprensión sobre la importancia de los beneficios derivados de las iniciativas de conservación. El documento es una contribución para garantizar tanto la equidad de los costos y beneficios de la conservación, como la sostenibilidad financiera de las áreas de conservación, y propiciar el emprendimiento de iniciativas exitosas en gran escala y a largo plazo.

RÉSUMÉ

Un nouveau rapport de la Convention sur la diversité biologique compte 36 études de cas mettant en évidence des avantages tangibles qui contribuent aux moyens de subsistance locaux et aux coûts de gestion de la conservation au sein de diverses aires de conservation à travers le monde. L'étude se concentre sur les gains économiques directs liés à la biodiversité qui ne remettent pas en cause les objectifs de conservation de la région. Un constat inattendu de cette étude a été l'absence de normes pour rendre compte des avantages économiques, ainsi que le large éventail des méthodologies de reporting utilisées. Cette courte communication présente le contexte général de la situation et formule des recommandations relatives à huit procédures de reporting qui pourraient aider à clarifier le montant et la répartition des avantages économiques relatifs aux sites. Ces recommandations pourront également faciliter les tentatives de comparaison et d'agrégation des initiatives de conservation, et aider à mieux prendre conscience de leur importance. Le document vise à contribuer à maintenir l'équité coûts-bénéfices de la conservation et la viabilité financière des aires de conservation, et à favoriser la mise en œuvre et la réussite d'initiatives aux échelles appropriées et à long terme.