

Land Conservation Impact Metrics

Rationale and Guidance from the Land Conservation Metrics Working Group

June 1, 2013

This paper is authored by Manta Consulting on behalf of the participants of a working group of land conservation experts who were convened to identify a set of impact metrics with applicability to land conservation investments and for inclusion in the IRIS catalog of generally-accepted performance metrics for impact investors. This paper provides a summary of the working group scope and approach, and it lists the set of metrics that resulted from their work accompanied by the rationale for inclusion. Additionally, it provides suggestions for investors looking to utilize the metrics.

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Metrics developed during the working group have been recommended for inclusion in IRIS and will be formally integrated in the next IRIS release, scheduled for early 2014. The metrics that are not yet part of the formal release are signaled in this paper with an asterisk.

Metric Citation: When citing IRIS metrics in public materials, please reference the guidelines on the IRIS website (<http://iris.thegiin.org/materials/referencing-iris-use>). Until the next formal IRIS release in 2014, cite these working group metrics with the following additional language – “This metric has been recommended for inclusion in IRIS by a working group convened by the IRIS initiative and will be formally integrated in the next release of IRIS, scheduled for early 2014.”

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Introduction

In 2012, the David and Lucile Packard Foundation – through its Program-Related Investment (PRI) and Evaluation programs – worked with the IRIS initiative at the Global Impact Investing Network (GIIN) and Manta Consulting Inc. to develop a set of land conservation metrics. These metrics were developed to allow the growing impact investment community to measure, compare, and convey the impact of different organizations' land conservation projects and/or investments. They can be used for internal performance tracking by land managers and investors, and also in public communications, as desired.

The scope of focus for metrics development was limited to projects that focused on and intended to conserve land. Some related topics, such as financing through REDD+¹, and the established Verified Carbon Standard² and Climate, Community and Biodiversity Analysis³ protocols, are categories of investment that were not examined.

Methodology

To develop a set of generally-accepted land conservation metrics, IRIS, Packard, and Manta collaborated to convene a working group made up of land conservation practitioners, land conservation investment managers, impact investors, and field experts to offer input and advice related to the identification and formulation of the metrics. Facilitated by staff from the IRIS initiative, this group held a series of meetings to identify the core issues and corresponding impact metrics relevant for land conservation, ultimately recommending a set for inclusion in the IRIS metrics catalog. To complement these metrics, the working group also felt it was important to separately share the overarching rationale and specific thinking behind their recommendations.

The metrics identified by this working group have been proposed for inclusion in IRIS. Subject to their review by the broader IRIS Advisory Body, they will be included⁴ in the next release of the IRIS catalog⁵, a free resource that is broadly used by impact investors. These metrics are indicated with an asterisk and footnote. Some of the identified metrics were already in IRIS and are noted as such.

The working group does not consider this set of metrics to be exhaustive. The final section of the paper discusses some additional considerations that land conservation investors may wish to take into account as part of their impact evaluation efforts. This section includes additional impact metrics that the working group considered important, but which do not lend themselves to standard definitions and therefore are not appropriate for inclusion in IRIS. The working group

¹ Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. For more information visit: <http://www.un-redd.org/aboutredd/tabid/582/default.aspx>.

² For more information visit: <http://v-c-s.org/>.

³ For more information visit: <http://www.climate-standards.org/>

⁴ When citing IRIS metrics in public materials, please reference the guidelines on the IRIS website (<http://iris.thegiin.org/materials/referencing-iris-use>). Until the next formal IRIS release in 2014, cite these working group metrics with the following additional language – “This metric has been recommended for inclusion in IRIS by a working group convened by the IRIS initiative and will be formally integrated in the next release of IRIS, scheduled for early 2014.”

⁵ The full catalog of IRIS metrics is available online and for download here: <http://iris.thegiin.org/iris-standards>

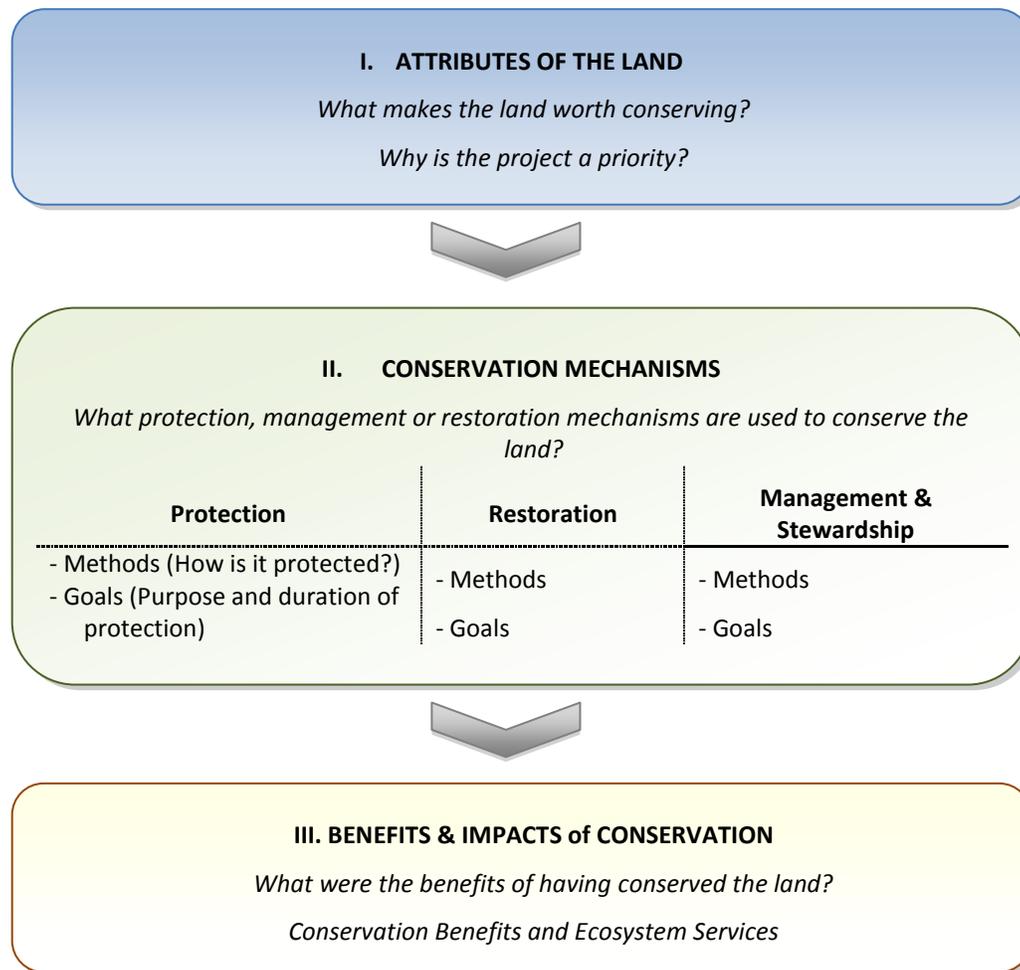
encourages investors to complement use of the metrics in this paper with other context or measures as needed, and provides some examples of where this specificity may be particularly helpful.

Metrics Framework

The following outlines the overarching framework, developed by the working group, for measuring the impact of land conservation projects. The framework includes three dimensions:

- I. Attributes of the Land. This first dimension focuses on setting the *context* for the land conservation project. It requires identification of the attributes of the land that makes conservation worthwhile (*its conservation value*), the conservation priority of the project, and identification of the conservation potential on the land.
- II. Conservation Mechanisms: Protection, Stewardship and Restoration. The second dimension focuses on the *methods* used by project leaders to create protection and maintain or create conservation value. Legal and non-legal protection mechanisms including ownership, easements or other mechanisms are considered as are management strategies, stewardship activities and restoration.
- III. Benefits of Conservation. The third dimension allows measurement of the *value created* through these conservation mechanisms.

Figure 1. Schematic of the Metrics Framework



This paper will briefly describe which metrics apply to each dimension of the framework and why they were selected.

The working group believes that understanding the impact of these projects requires an understanding of all three dimensions. They therefore propose that investors utilize the metrics as a set, rather than picking and choosing metrics from only one dimension.

All of the impact metrics recommended for inclusion in IRIS have been listed fully with descriptions and corresponding glossary terms at the end of this paper. Additional topics recommended for consideration are addressed in more general terms.

I. ATTRIBUTES OF THE LAND: What makes the land worth conserving?

When considering a land conservation project, investors should understand the essential attributes of the land that make the project a worthwhile priority. The working group has chosen several broad-based metrics, based on national and international standards, to communicate these attributes and to provide investors with the ability to aggregate and compare data across different geographical and political boundaries. The proposed metrics are as follows:

1. **Conservation Priority Characteristics.** Drawing on work previously done by the Forestry Stewardship Council, the International Union for the Conservation of Nature, and the High Conservation Value Network, the working group created a list of characteristics to capture the *reasons the land is a conservation priority*. This metric, **Conservation Priority Characteristics (*PD 9009*)**, allows a user to specify aspects related to the ecology and habitat on the land, the public and human uses of the land, and the ecosystem services provided by the land.
2. **Conservation Priority Characteristics – Supporting Narrative.** Many investors will want further detail, depth, and documentation related to these characteristics. The working group encourages investors to supplement the **Conservation Priority Characteristics (*PD 9009*)** metric with additional narrative, and also to specify if the selected conservation characteristics are also prioritized by a credible third party group, and if so which groups (for example, governments, local communities, or nonprofits). Work that has been done to verify or certify these priority conservation characteristics should also be referenced. Details of these characteristics are listed in the following table.

Ecology and Habitat	Specify, for example, the type and quality of wildlife habitat, list endangered or vulnerable species for which it is critical habitat, and/or the connection to migration corridors.
Public / Human Use	Specify, for example, the characteristics of the land and landscape that make it outstanding, the groups that rely on the land for traditional activities, and/or the third party entity that has prioritized the land for conservation.
Ecosystem Services	Specify which ecosystem services in Ecosystem Services (*PD 8494*) . Specify if these have been verified by a credible third party.

3. **Type of Land Area.** This metric allows investors to categorize projects by land type to provide better context for understanding why the project is valuable. It focuses on nine general land types, defined by the dominant existing 'land cover' for each. It uses the Anderson Land Cover Classification System⁶ developed by the United States Geological Survey in 1976 and now broadly used as a general land categorization. Definitions of each, as well as sub-categories with greater detail, are available online.

⁶ Anderson, J. et al. (1976) "A Land Use and Land Cover Classification System for Use with Remote Sensor Data." Geological Survey Professional Paper. No 964. Available online: <http://landcover.usgs.gov/pdf/anderson.pdf>

4. **Specific Features.** Investors with specific interest in conserving certain features may wish to capture the presence of these characteristics on the land that is part of the project. As a matter of practicality, project leaders are expected to identify the characteristics of land which pose the greatest conservation concern for each of the below, rather than to develop an exhaustive list for each element. Land conservation investors with a specific focus on water bodies present on protected or sustainably stewarded land can specify those using:
- **Fresh Water Bodies Present (*PI 7170*)**
 - **Streams Present (*PI 3239*)**
 - **Coastlines Present (*PI 5840*)**

The metrics listed above all describe the land within a specific project. The amount of land in the project being described should be specified with metrics described in the next section, specifically the total land in the project and land that is under sustainable stewardship and/or under legal protection.

II. CONSERVATION: What protection, management or restoration mechanisms are used to conserve the land?

Investors should look to understand the scale of a land project and the amounts of land managed under various conservation strategies. Land project managers may achieve conservation objectives through different, non-exclusive strategies, including placing legal protection on land to prevent certain land uses; sustainably managing land; and/or restoring land.

Total Land Area - Control and Scale

Once the basic attributes of the land are defined for a project, the working group suggests investors consider metrics that define the level of control that the managing entity will have to implement conservation and the relative scale of the project. These metrics include:

1. **Total Land Area.** Understanding the total land in the project places the project in context. Existing IRIS metrics enable land to be affiliated with projects in two ways, differentiated by the degree of control that the reporting entity has over the land. Separating these is useful to understand the context of land management.
 - **Land Area Directly Controlled (OI5408).** Direct control implies that the organization completely controls land use through direct operation or management.
 - **Land Area Indirectly Controlled (PI3789).** Indirect control means the organization exerts significant influence or total control over land use practices, but does not, itself, directly operate or manage the land.

Land Protected

2. **Total Amount of Land that is Protected⁷.** The total number of hectares that are placed under protected status is an important measure of the scale of the conservation project. Land protection can occur in two ways, through permanent or non-permanent legal mechanisms, where permanent refers to land protection that is established in perpetuity. The proposed metrics define legal protection on land (either permanent or non-permanent) as that which prevents certain types of land uses that are not compatible with the conservation values.
 - **Protected Land Area (*PI 4716*)**
 - **Protected Land Area – Permanent (*PI 3924*)**

Management and Sustainable Stewardship

The working group discussed the fact that there are many impactful land projects that maintain and enhance the conservation values of the land through specific activities. The below metrics are intended to capture this value.

1. **Management and Stewardship.** The working group recognizes activities involving the active management and stewardship of land as productive and valid strategies for land conservation and suggests the following metrics to capture the resulting impacts. Examples of projects that might use these metrics include “working landscapes” (horticulture, livestock,

⁷ For the working group, the term “protection” is a specific method of “conservation.” “Protection” includes legal and non-legal protection designations as well as a variety of uses, ranging from highly restricted use or no use to various permitted uses for sustainable economic development.

timber) and those that use land for specific, sustainable activities (eco-tourism, sustainable development).

- **Sustainably Managed Land Area: Direct (*OI 1674*).** The proportion of land being used for sustainable cultivation or sustainable stewardship purposes, where activity on the land is directly controlled by the organization reporting the impact data. (See also Land Area Directly Controlled).
- **Sustainably Managed Land Area: Indirect (*PI 7403*).** This indicates that someone other than the organization reporting the impact data is responsible for sustainable activities, under the auspices of the conservation goals of the project. (See also Land Area Indirectly Controlled).
- Additional metrics that can help communicate other dimensions of management and stewardship, such as third party certifications, are suggested below in the *Benefits and Impact of Conservation* section of this paper.

Restoration

2. **Restoration.** For some land conservation projects, a significant focus may be restoration activities. The working group suggests that these projects report the number of hectares under restoration management, and also specify the relevant restoration activities (that are consistent with the specified definition of ecological restoration).
 - **Ecological Restoration Management (*PI 9556*).** Without a method to compare highly varied restoration activities, the working group suggests that projects report the number of hectares under ecological restoration management during each reporting period and provide accompanying narrative detail as needed. This narrative detail may specify the objectives and activities of restoration activities, the time frame, and the results. This is measured in the number of hectares where restoration activities are occurring. The definition for ecological restoration specifies it is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. An ecosystem has recovered - and is restored - when it contains sufficient biotic and abiotic resources to continue its development without further assistance or subsidy.
 - **Streams Restored (*PI 6885*)** and **Coastline Restored (*PI 2538*)** specifically measure kilometers of stream and coastline under restoration management.

III. BENEFITS AND IMPACT OF CONSERVATION

Once all of the above primary conservation goals and actions are defined and measured, the working group thought it important to allow investors to capture and measure the benefits generated *as a result of* those conservation activities.

Connectivity

For many conservation objectives, large, connected assemblages of conserved land are more valuable than small and disconnected pieces of conserved land. To capture holistically how a specific project complements previous conservation work, the working group suggested that investors measure two things:

1. **Protected Land Adjacency (*PI 2135*)**. This is a measure of the total length of boundaries shared between different protected land areas.
2. **Protected Land Assemblage Total Area (*PI 5750*)**. A measure of the total number of hectares of protected land combined with adjacent protected land.

Each of these metrics conveys information about how additional hectares in a new project may add value to protected land in adjacent areas. Though not included as a proposed impact metric, a reporting entity may additionally choose to report on land assemblage additions, or incremental additions to protected areas that will accumulate to a larger protected area.

Ecosystem Services and Earned Revenue from Sustainable Land Use

The working group suggests reporting on the broad topic of ecosystem services⁸, or the variety of benefits that humans obtain from ecosystems in general (e.g. fresh water, timber, climate regulation, food provision, recreation, and aesthetic values). This metric, **Ecosystem Services (*PD 8494*)**, has been formulated to convey the intrinsic benefits of the land project(s) through a simple menu offering multiple choices divided into four categories, specifically provisioning, regulating, supporting, and cultural. The choices presented reflect best practice as published by the World Resources Institute and U.N. Environmental Program. Investors are encouraged to request explanation of how the land provides the ecosystem service(s) and footnote external validation to the extent possible.

A significant proportion of land conservation projects entail revenue generation through the monetization of ecosystem services or economic activity as a part of ongoing sustainable management. Capturing these benefits can help demonstrate how investors and land project managers create financial sustainability to support conservation priorities and how these projects generate social impact for local communities. For this, the working group suggests the following metrics. These metrics distinguish between situations where sustainable economic activities are carried out directly by the reporting entity, and situations where the reporting entity owns the

⁸ Capturing more specific, quantifiable data on the value generated by ecosystem services will invariably play a significant role in measuring and communicating the impact of various land conservation projects over time. In most cases, however, mechanisms that can monetize such services are not well-developed enough to be used with high confidence in a standardized set of impact metrics such as IRIS. In some instances, mechanisms do exist to quantify and monetize ecosystem services, such as in the case of carbon credits or wetland mitigation credits. The working group expects that, in addition to self-reported ecosystem services provided by the land, *realized* and *measured* ecosystem services will ultimately form an important part of assessing and communicating the impact of various land conservation projects.

land and sets guidelines for permissible activities but is allowing another organization to operate on that land.

<u>Reporting Entity is the Operating Organization</u> Use in conjunction with Sustainable Managed Land – Direct (OI 1674)	<u>Reporting Entity is not the Operating Organization</u> Use in conjunction with Sustainable Managed Land - Indirect (PI 7403)
Earned Revenue (FP 5958). In cases where the land manager itself earns revenue through activities such as sustainable forestry, ranching, agriculture, or recreation, then this revenue will reported as part of the entity’s earned revenue for that activity.	Revenue Generated (at Supported Enterprises). Describes the revenue earned by enterprises operating on the land (but which are not the reporting entity or land manager) and earning revenue through activities such as sustainable forestry, ranching, agriculture, or recreation.
Full-time Employees (OI3160) Part-time Employees (OI8864) Temporary Employees (OI9028)	Jobs Maintained at Directly Supported Enterprises (*PI 3687*) - Number of full-time equivalent jobs at enterprises responsible for economic activities that qualify as sustainable stewardship, operating on hectares indirectly controlled. Jobs Created at Directly Supported Enterprises (*PI 3687*) – Net new jobs created since the time the reporting entity purchased the land, or the operating company began operating on it (choose whichever was most recent).

Certifications

The reporting entity can specify additional information on third-party certifications relevant to its operations using **Operational Certifications (OI1120)** to report which third-party certifications may be in place for business operations and processes related to the land project (e.g. Organic, B-Corp, Fair Trade).

If the reporting entity wishes to specify a third-party certification for the products and services originating from the land project (e.g. Forest Stewardship Council certification), it can do so using **Certifications (PD2756)**.

Additional topics for investor consideration

Finally, the working group discussed a number of other key topics in the field of land conservation that are central to reporting impact, but for various reasons are not appropriate for inclusion in IRIS. For example, some aspects of project impact do not lend themselves to a standard definition. These include:

1. **Innovation:** There are a growing number of innovative conservation and finance mechanisms available today that are facilitating the growth of land conservation projects. While these tools are of significant importance in making deals happen, they are not directly related to the impact of the conservation itself, or the intrinsic conservation value of the land. The working group sees value in identifying innovative financing mechanisms that are built into land conservation investment projects, though it is too early to standardize a framework for categorizing them.
2. **Climate Change:** The topic of climate change is enormous and varied and was considered to be beyond the scope of this working group. However, the group agreed that the increasing significance of climate change, and the variety of investment opportunities that will originate from the issue, will require that impact investors ultimately have a set of metrics that capture related impact data (such as specific positive environmental impact of land conservation through carbon sequestration).

At this time, the working group is recommending that land conservation investors make use of the existing IRIS impact metric **Greenhouse Gas Emissions (OI1479)** reported in metric tons of CO₂ equivalent and to separately calculate emissions due to the conservation of land, for example by avoiding deforestation. These may be necessary calculations to quantify carbon credits for the land conservation project. Clear methodologies, such as the Verified Carbon Standard⁹ and Climate, Community and Biodiversity Analysis¹⁰ protocols, already exist for measuring, monitoring, and verifying carbon credits. United Nations REDD+¹¹ Program (Reducing Emissions from Deforestation and Forest Degradation) is one example of a set of steps designed to use market and financial incentives in order to reduce emissions of greenhouse gases. Acknowledging continuing evolution in how emissions under 'business as usual' scenarios are calculated, no single metric has been recommended for inclusion in IRIS in this work.

3. **Resilience:** The working group suggests that investors ask project managers about the resilience of their conservation efforts. This is intended to spark discussion between investor and project managers.
4. **Financial Capacity for Stewardship:** The working group believes that to be successful in the long term, land conservation projects require some mechanism to ensure long term financial capacity for stewardship. To understand this, investors may wish to request information on funding, income, insurance or other means to ensure the long term success of the project.

⁹ For more information visit: <http://v-c-s.org/>.

¹⁰ For more information visit: <http://www.climate-standards.org/>

¹¹ Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. REDD+ incorporates the impact of conservation, sustainable management of forests and enhancement of forest carbon stocks. For more information visit: <http://www.un-redd.org/aboutredd/tabid/582/default.aspx>.

Conclusion

The metrics and framework summarized in this document reflect the recommendations of this working group on needed elements to evaluate the impacts of land conservation projects. This framework includes three dimensions:

- I. The attributes of the land – why it is worth conserving;
- II. The mechanisms used to conserve the land – whether through legal protection, sustainable management, or restoration and;
- III. The actual benefits and impact of the land conservation.

The metrics are intended to assist investors and practitioners in assessing the *performance* of their investments both at the project and portfolio level relative to their land conservation objectives. It is the hope of the working group that investors utilize the relevant proposed metrics as a set, which will allow for greater consistency and transparency to compare land projects. As an increasing number of investors consistently apply them, the data on their performance will grow and be increasingly comparable.

However, even as a set, these proposed metrics are not intended to be comprehensive. They cannot and do not reflect the entire range of issues that may be of importance to the wide array of land conservation investors today. Rather they are intended to generally address the bulk of land conservation activities carried out by various practitioners, investors and intermediaries. Many, if not all, land project managers and their investors will track and request additional detail to contextualize and assess the impact of a specific project.

Finally, the working group and IRIS anticipate that this set of metrics will expand over time. The working group recognizes that a few significant issues remain unresolved, such as accounting for, monetizing, and realizing values related to ecosystem services. These particular issues are complex, and the market is still determining how these items will ultimately be defined and utilized by impact investors to capture and report impact.