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Using REDD+ Funds to Support Protected and Conserved Areas in Lion Landscapes

Equilibrium RESEARCH

The lion range already contributes 11% of Africa's carbon storage and capture from just 6.7% of the continent's area. There is a potential for a much larger contribution if management were sustainable. REDD+ offers a way of bringing vital funds to support protected and conserved areas and there are already successful schemes in operation with experience to share. But it's not always a straightforward process. This leaflet tells you what is and isn't possible and outlines the steps to take.

Some of the material in this leaflet draws on an earlier publication: *The New Lion Economy. Unlocking the value of lions and their landscapes*, by Sue Stolton and Nigel Dudley, 2019. Equilibrium Research, Bristol, UK.

This leaflet was produced by Nigel Dudley and Sue Stolton of Equilibrium Research and Jo Anderson of Carbon Tanzania and was funded by the Lion Recovery Fund.

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What is REDD+?

Around a fifth of the world's greenhouse gas emissions come from the destruction of natural vegetation, especially forests, which releases carbon into the air. The UN Framework Convention on Climate Change (UNFCCC) has developed an approach for monitoring and financing forest conservation which reduces greenhouse gas (GHG) emissions thereby contributing to climate change mitigation. This is known as REDD+.

REDD+ (or **REDD-plus**) stands for *"reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries"*.

This definition has evolved gradually. The most important thing to note is that it now includes funding for "conservation" of forests so that **the conservation of forests in developing country protected areas** can be eligible for support. REDD was not provided for in The Kyoto Protocol, but was included in the subsequent Paris Agreement. and it opens up important options for areas like national parks, conservancies, wilderness areas, wildlife reserves, buffer zones and conservation corridors with significant forest cover and conservation objectives.

Today, there are five "eligible activities" in REDD+

1. Reducing emissions from deforestation
2. Reducing emissions from forest degradation
3. **Conservation of forest carbon stocks**
4. Sustainable management of forests
5. **Enhancement of forest carbon stocks**

Protected and conserved areas can play a role in all these but are most likely to be eligible in (3) *conserving forest carbon stocks*, or if the forests have been degraded – either before the area was managed for conservation or through poor management effectiveness – (5) *enhancement of carbon stocks* may also help support forest restoration.

But – and it is a big but – although there are some REDD+ initiatives supported by governments, the private sector and philanthropic individuals, there is still a debate about how REDD+ will work and be financed globally within the current Paris Agreement. It is still not clear whether this will really be a significant contribution to tackling climate change, or a more limited, voluntary response.

Although most REDD+ projects are in forests, especially lowland tropical forests, in much of Africa most of the carbon is stored in miombo woodland and acacia savannahs, making it a more important store overall. Several successful projects are already running in lion landscapes.

The advantages of REDD+ to a protected or conserved area

The big advantage is that a properly financed and secure REDD+ scheme can **bring money for conservation management** that is not tied to tourism or public budgets. There are four other reasons why a protected or conserved area might be interested in using a REDD+ scheme to finance conservation:

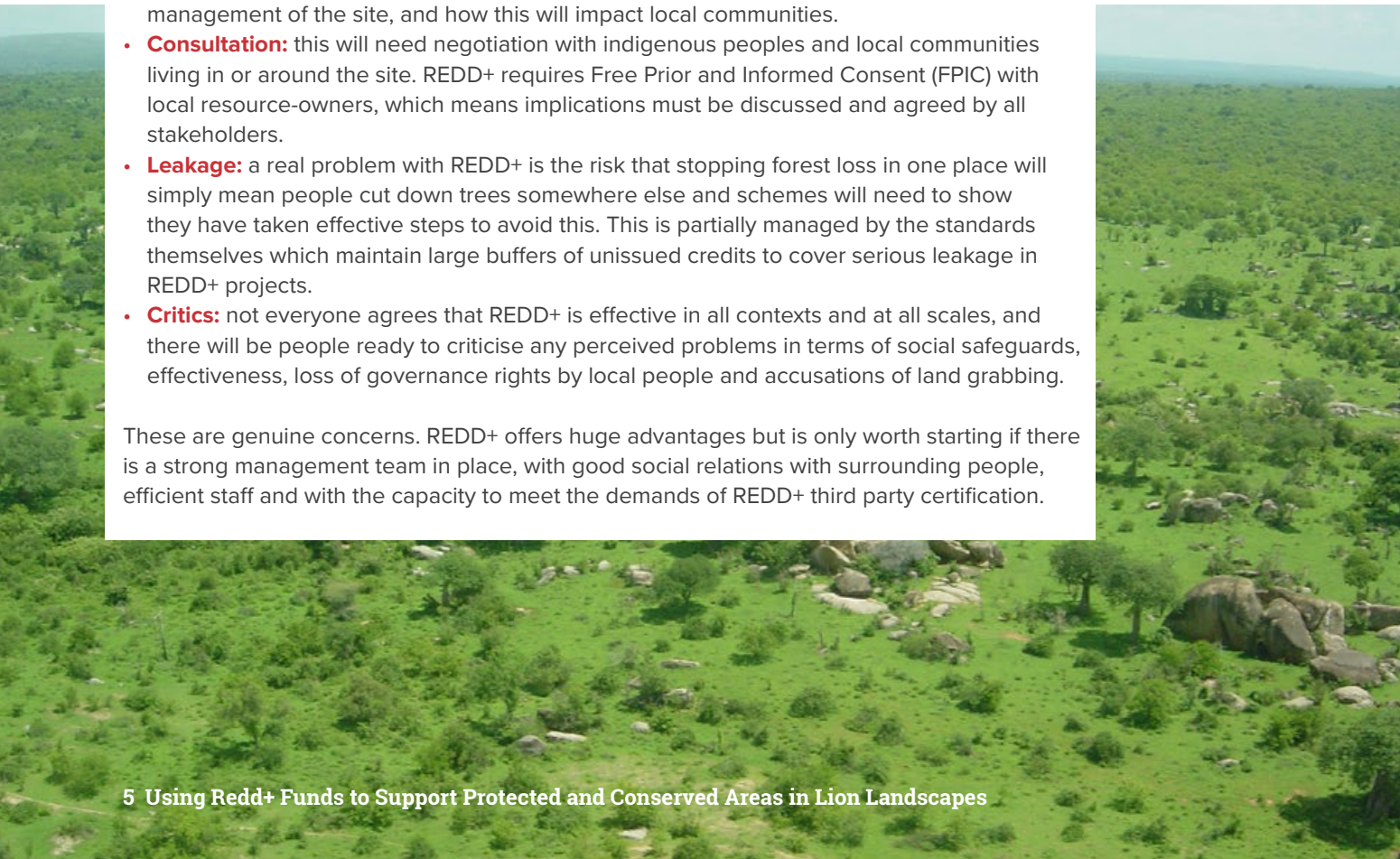
- **Supporting key management objectives:** securing forests helps to secure biodiversity along with many other ecosystem services including water provision, disaster risk reduction and contributions to food security.
- **Supporting local communities and indigenous peoples:** a proportion – often a major proportion – of REDD+ funding will support the livelihoods of local people, meaning they have more incentive to use and manage forests sustainably.
- **Supporting effective management:** committing to a REDD+ scheme means commitments in terms of management, conservation targets and measuring success against agreed baselines – a results-based mechanism. This is a "hidden" advantage – extra pressure to ensure management is working.
- **Supporting sites without other options:** REDD+ is ideal for places where there will not be many tourists and where there aren't any obvious fund-raising alternatives – remote conservancies, places with heavy tse-tse fly infestations, etc.

Some potential disadvantages

While there can be major benefits, there are also costs – in terms of paperwork, additional commitments and risks of failure. No-one should get involved in REDD+ without first thinking it through very carefully and looking at the potential drawbacks.

- **National system:** REDD+ schemes may have to be embedded in national systems that include (1) a national strategy, (2) a national forest reference emission system (i.e. an idea of the scheme's potential), (3) national forest monitoring system for monitoring, reporting and verification, and (4) standardised data on social safeguards. Not all countries have these; although it is sometimes possible to work with governments to develop systems, it brings extra complications.
- **Additionality:** the scheme will need to prove that it is really reducing the amount of greenhouses gases through reducing emissions, or carbon capture, against an established baseline scenario.
- **Bureaucracy:** there will be lots of paperwork: schemes have to be certified against global standards by third party verification bodies, in order to show how much carbon is saved and/or captured, how this will be done and measured, what the implications are for the management of the site, and how this will impact local communities.
- **Consultation:** this will need negotiation with indigenous peoples and local communities living in or around the site. REDD+ requires Free Prior and Informed Consent (FPIC) with local resource-owners, which means implications must be discussed and agreed by all stakeholders.
- **Leakage:** a real problem with REDD+ is the risk that stopping forest loss in one place will simply mean people cut down trees somewhere else and schemes will need to show they have taken effective steps to avoid this. This is partially managed by the standards themselves which maintain large buffers of unissued credits to cover serious leakage in REDD+ projects.
- **Critics:** not everyone agrees that REDD+ is effective in all contexts and at all scales, and there will be people ready to criticise any perceived problems in terms of social safeguards, effectiveness, loss of governance rights by local people and accusations of land grabbing.

These are genuine concerns. REDD+ offers huge advantages but is only worth starting if there is a strong management team in place, with good social relations with surrounding people, efficient staff and with the capacity to meet the demands of REDD+ third party certification.



A basic methodology

There are five main steps – but note that each one will take time and effort (and we are assuming that there is a national framework in place):

1. Select and agree an area of forest for a long-term legal agreement for conservation

[Implies identification, estimate of carbon stored or to be captured through forest restoration, understanding of implications, negotiation with all relevant stakeholders...]

2. Design project activities and validate project approach and estimated carbon reductions using third party auditor

[Project approach and activities must be validated against an internationally recognised standards agency by a third-party auditor, who will need to be paid]

3. Get a verified certification body to confirm carbon stored or captured and assess management effectiveness

[To achieve this, the management will already need to be in place, which may imply additional expenses]

4. Sell the forest carbon credit to government or business

[This assumes you can find a buyer – smart schemes identify a potential buyer before going through steps 1-3, if the credit is to be used as an offset, a commercial buyer is needed, if the credit is to be used for national accounting, an agreement with national government will be required]

5. Offset revenue is invested back into forest management and community support

[Effective management needs to continue and monitoring must ensure carbon is really being stored or captured – if not payments will cease]

A checklist of things needed

At national level, is there:

- ✓ A national REDD+ strategy? [*Many countries have developed or are developing these, e.g., Congo, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Equatorial Guinea, Ghana, Kenya, Malawi, Nigeria, Tanzania, Uganda and Zimbabwe*.]
- ✓ A national forest reference emission level agreed? (A sub-national figure can sometimes be used as an interim) [*e.g., Ethiopia already has a national reference emission*]
- ✓ A robust and transparent national monitoring system?
- ✓ A system for ensuring that social and environmental safeguards are being met?
- ✓ A government department, NGO or REDD developer available to give advice?

The first four would be required in the case that the REDD+ scheme is to be included in a jurisdictional carbon accounting system. Getting these in place is called "*REDD Readiness*", and most forest range states have been through this over the past 10 – 15 years. The last is worth checking, because if there are knowledgeable people available, they should be a source of information and help, but this is not essential.

At the site level, before taking official steps to start the scheme, do you have:

- ✓ An identified demarcated and mapped area of forest with clear land-tenure and user-rights to use in the scheme?
- ✓ Agreement with local stakeholders about management, benefits and expectations?
- ✓ Agreement following a Free Prior Informed Consent (FPIC) process in the case of any resident or local indigenous peoples?
- ✓ Robust estimations of the amount of carbon stored and/or captured by the proposed scheme?
- ✓ A detailed understanding of the drivers of deforestation in the landscape / reference region.
- ✓ Management plans that lay out clearly how the carbon is being stored or captured?
- ✓ Enough staff capacity and equipment to manage the area (including evidence of extra staff training if required)?
- ✓ An agreed monitoring system?
- ✓ A potential buyer of the carbon offsets (and if so have you checked that all their requirements have been met)?

With the carbon certification body have you:

- ✓ Agreed scope of work and costs?
- ✓ Gone through the verification process?
- ✓ Achieved verification of at least one year's activities?

With the purchaser of carbon offsets have you:

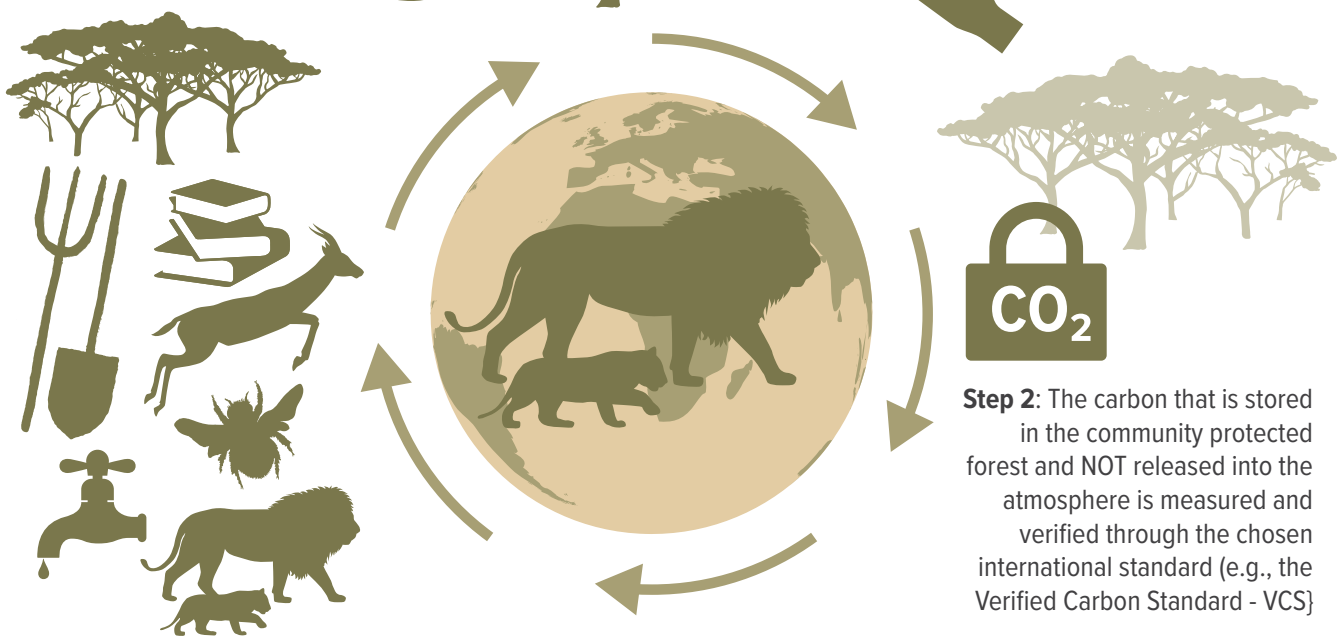
- ✓ Agreed prices and conditions?
- ✓ Agreed any monitoring or reporting process in addition to those required by the third-party certification process – how often do you report, what happens if things go wrong?

Sites will need a dedicated person working on this full-time for a considerable period and will also need to assign people and resources to both the management and monitoring throughout the project.

If local communities are involved, and particularly if they are beneficiaries, monitoring of their use of the forest will also be necessary, and someone with good negotiation skills needed if things start to go wrong.

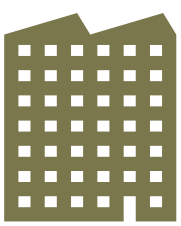
A good REDD+ scheme

Step 1: Communities and project developer select forest they want to protect through long term binding legal agreements



Step 2: The carbon that is stored in the community protected forest and NOT released into the atmosphere is measured and verified through the chosen international standard (e.g., the Verified Carbon Standard - VCS}

Step 3: Standards Agency issues verified emissions reductions (VERs) based on the performance of the community and project developer in protecting the forest



Step 4: Sell VERs to businesses for use as offsets against their operational carbon emissions

Step 5: Revenue from the sale of Forest Carbon Offsets is invested back into the local communities and longterm forest and wildlife conservation activities

Calculating the amount of carbon

Southern Africa's miombo forests cover twice the area of the Congo Basin. Most remain carbon sinks although that could change if degradation and loss continue. There is great potential for REDD+. In Tanzania for instance, it is calculated that over US$750 million per year could be earned from implementation of REDD+ in all forest and woodland.

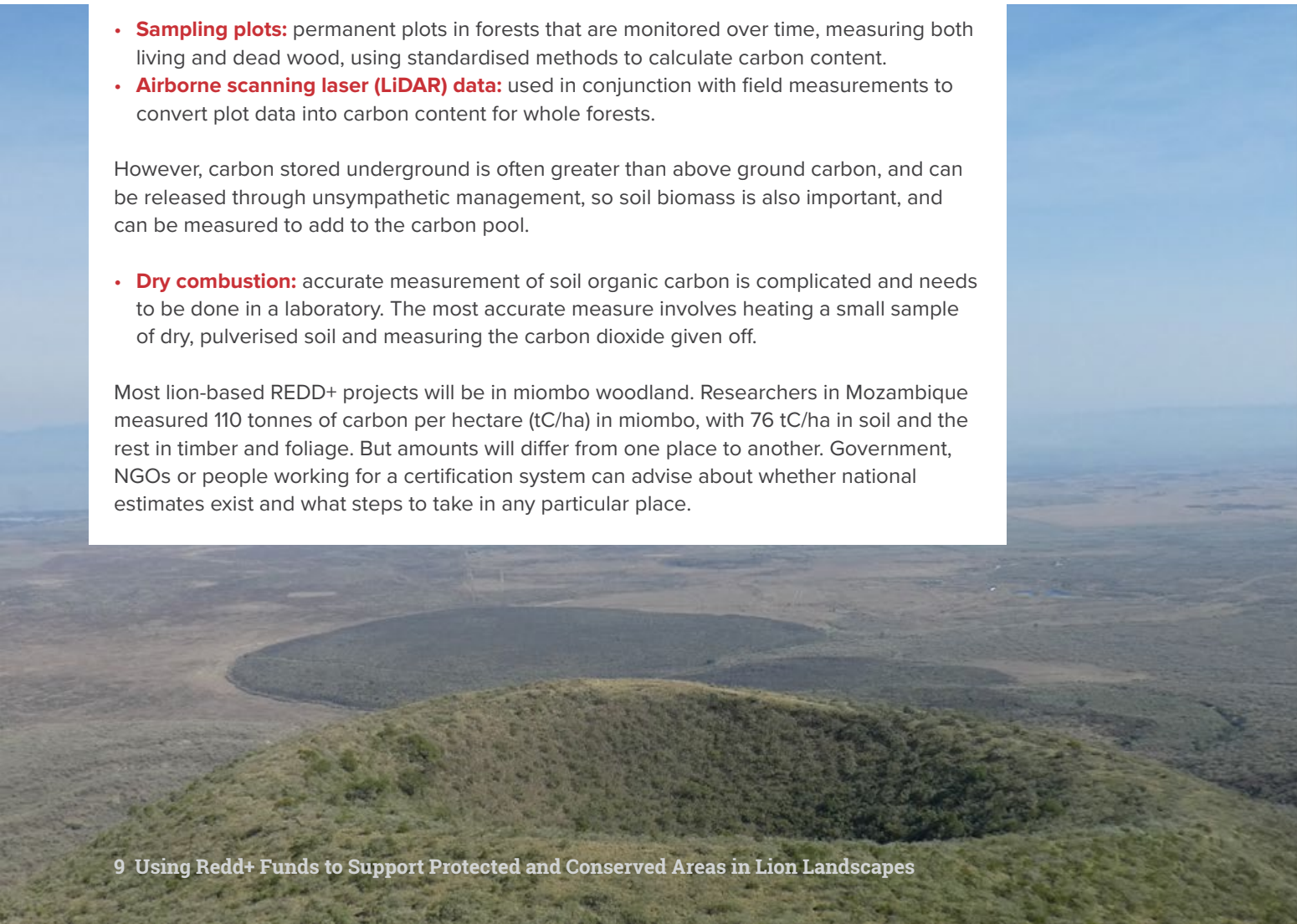
Some countries already have estimates for carbon from different types and ages of forests, growing on different soils, in which case your job will be fairly easy. In other cases it will take more time and money to reach an accurate estimate. There are many different methods or working out carbon stored in ecosystems and a lot of debate about which is best. Above ground biomass is roughly half carbon, but measurement is challenging. Most surveys use a combination of two approaches:

- **Sampling plots:** permanent plots in forests that are monitored over time, measuring both living and dead wood, using standardised methods to calculate carbon content.
- **Airborne scanning laser (LiDAR) data:** used in conjunction with field measurements to convert plot data into carbon content for whole forests.

However, carbon stored underground is often greater than above ground carbon, and can be released through unsympathetic management, so soil biomass is also important, and can be measured to add to the carbon pool.

- **Dry combustion:** accurate measurement of soil organic carbon is complicated and needs to be done in a laboratory. The most accurate measure involves heating a small sample of dry, pulverised soil and measuring the carbon dioxide given off.

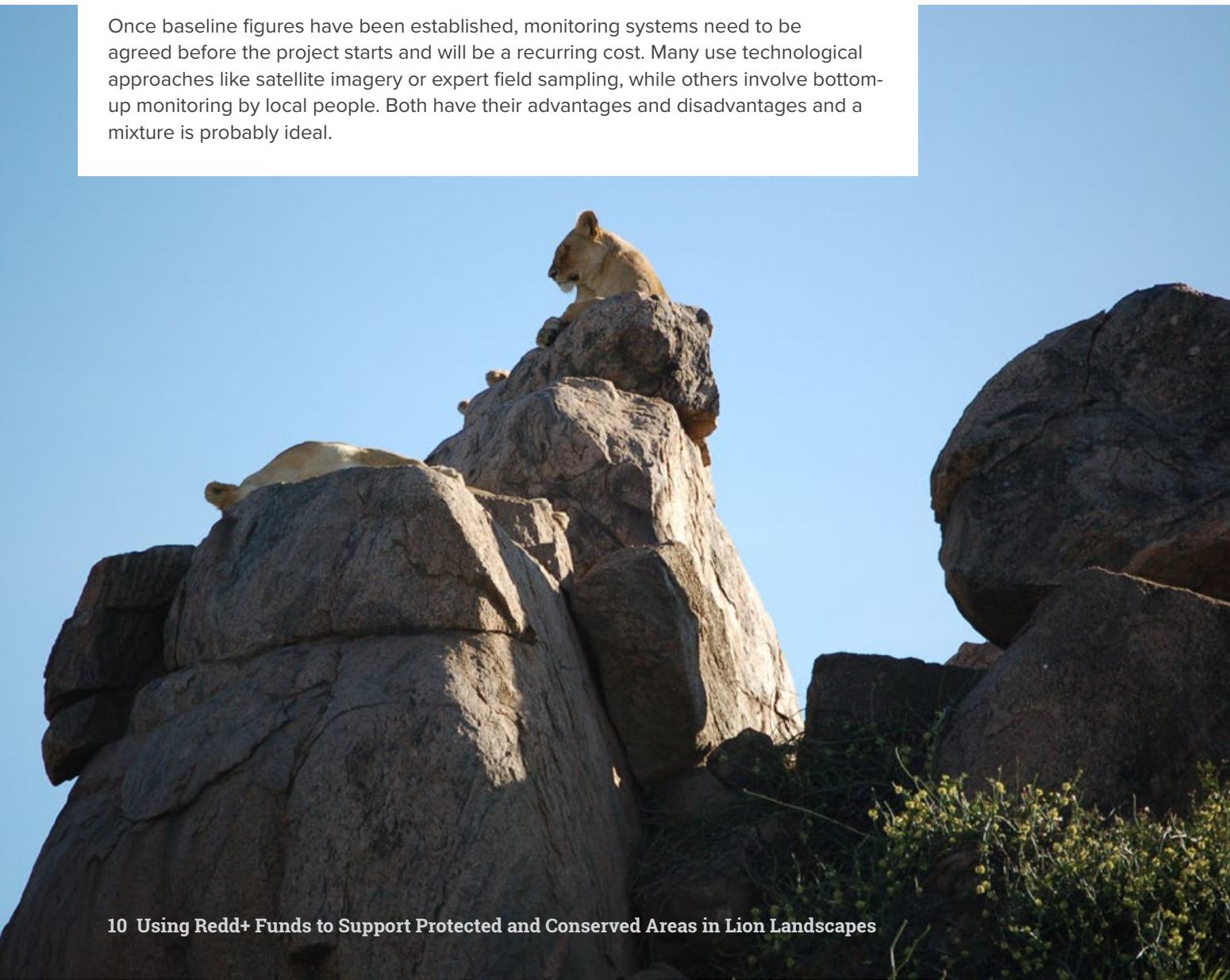
Most lion-based REDD+ projects will be in miombo woodland. Researchers in Mozambique measured 110 tonnes of carbon per hectare (tC/ha) in miombo, with 76 tC/ha in soil and the rest in timber and foliage. But amounts will differ from one place to another. Government, NGOs or people working for a certification system can advise about whether national estimates exist and what steps to take in any particular place.



Monitoring REDD+ schemes

Because REDD+ schemes report directly to a standard's agency, they need to be monitored throughout their lifetime. Monitoring at a minimum measures carbon storage and capture to prove additionality and to show that there are no unacceptable social or environmental costs. Good monitoring systems should also ensure there is no leakage, in other words that saving forests in one place does not simply displace deforestation elsewhere. Adherence closely to international certification standards ensures that the above issues are addressed.

Once baseline figures have been established, monitoring systems need to be agreed before the project starts and will be a recurring cost. Many use technological approaches like satellite imagery or expert field sampling, while others involve bottom-up monitoring by local people. Both have their advantages and disadvantages and a mixture is probably ideal.



CASE STUDY 1:

Tanzania

Carbon Tanzania is a social enterprise working with communities to realise the economic value of standing forests, mainly through the sale of carbon offsets. The Makame Wildlife Management Area (WMA) is a 400,000 ha area of Acacia woodlands close to Tarangire National Park and is the largest community managed conservation area in East Africa. 104,000 ha of this woodland is being protected from illegal shifting agriculture through collaboration with five Maasai villages, including around 15,000 people. Seasonal and semi-nomadic grazing patterns are being maintained and people can practice their traditional cultural lifestyle. Illegal settlement, responsible for loss of forest in the region, is being prevented. The project is employing anti-poaching patrols, running wildlife monitoring and providing training opportunities, including for women's empowerment. To date, some US$350,000 has already been invested to initiate the project, and an estimated 268,000 trees a year are being saved from felling.

The project is verified to Triple Gold level under the Verified Carbon Standard and the Climate, Community and Biodiversity Standards, and protects resident populations of important rare and endangered mammal species such as Wild Dog, elephant, Fringe-eared oryx, Gerenuk and lion.

CASE STUDY 2:

Zambia

Deforestation is a major issue in Zambia. The Lion Carbon project aims to apply a REDD+ scheme over 8,050 km^2 linking four national parks in Zambia, in a collaborative effort between a social enterprise (Biocarbon Partners) and an Oxford University-based conservation organisation (Lion Landscapes). The scheme combines anti-poaching patrols with reduced habitat loss and equitable benefits-sharing with local communities. Approximately 67% of the Lower Zambezi/Luangwa ecosystem consists of General Management Areas (GMAs) managed by legally mandated Community Resource Boards (CRBs). Income and benefits from wildlife activities are limited. By selling carbon credits to companies looking to make voluntary purchases to offset their emissions, the Lion Carbon project is securing one of the last six lion strongholds in Southern Africa. Over ten years the project aims to protect ten million hectares of forest and help the livelihoods of a million people. A pilot of the project in Rufunsa Conservancy, started in 2012, has seen prey species increase in numbers and lions return to the area. An additional benefit of the carbon schemes being set up in Zambia is that protected areas are becoming carbon neutral, with all emissions related to tourism being offset, including all international tourist airline travel and conservation management within the park.

CASE STUDY 3:

Kenya

A long-term project on the corridor between Tsavo East and Tsavo West National Parks has restored overgrazed and poached out land into 200,000 ha of dryland *Acacia-Commiphora* forest, which is home to 15-30 lions, offsets 1 million tons of CO_2 emissions a year and supports an impressive range of community initiatives including a carbon neutral, fair trade clothing factory. Wildlife Works Carbon employs over 250 people as rangers, outreach workers, greenhouse farmers and builders. Over 55,000 trees have been planted in the corridor. Nearby, the 410,000 ha Chyulu Hills REDD+ project supports a wildlife corridor linking Amboseli, Chyulu Hills and Tsavo National Park. The project was launched in 2017 and is expected to avoid more than 18m tons of CO_2 emissions over its 30-year lifetime. The project achieved Gold Level validation and verification under the Verified Carbon Standard and the Climate, Community and Biodiversity Standards, and secured over two million carbon credits for sale from its first monitoring period (2013-2016).

Sources of information and useful addresses

Some useful sources of information:

Center for International Environmental Law. 2014. *Know Your Rights Related to REDD: A guide for Indigenous and local community leaders.*

Sue Stolton and Nigel Dudley. 2019. *The New Lion Economy. Unlocking the value of lions and their landscapes.* Equilibrium Research, Bristol, UK.

WWF. 2013. *WWF Guide to Building REDD+ Strategies.*

Some useful contacts:

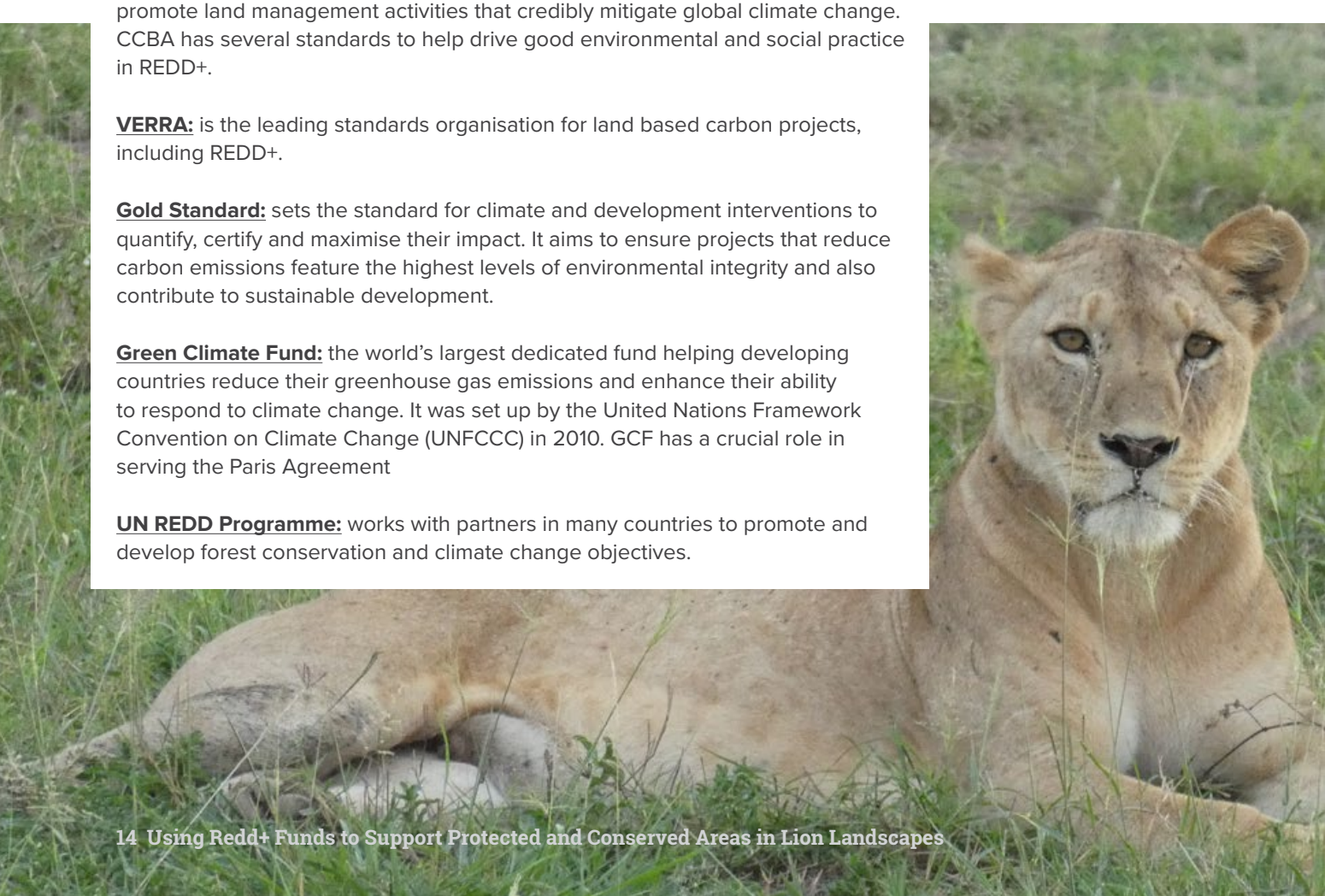
Climate, Community and Biodiversity Alliance: a unique partnership of leading international NGOs that was founded in 2003 with a mission to stimulate and promote land management activities that credibly mitigate global climate change. CCBA has several standards to help drive good environmental and social practice in REDD+.

VERRA: is the leading standards organisation for land based carbon projects, including REDD+.

Gold Standard: sets the standard for climate and development interventions to quantify, certify and maximise their impact. It aims to ensure projects that reduce carbon emissions feature the highest levels of environmental integrity and also contribute to sustainable development.

Green Climate Fund: the world's largest dedicated fund helping developing countries reduce their greenhouse gas emissions and enhance their ability to respond to climate change. It was set up by the United Nations Framework Convention on Climate Change (UNFCCC) in 2010. GCF has a crucial role in serving the Paris Agreement

UN REDD Programme: works with partners in many countries to promote and develop forest conservation and climate change objectives.



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Created by the Wildlife Conservation Network in partnership with the Leonardo DiCaprio Foundation, the Lion Recovery Fund funds game-changing conservation actions by the most effective, vetted partners who work collaboratively to bring lions back. Through strategic investments and collaboration with other public and private donors, the Lion Recovery Fund aspires to double the number of lions in Africa, regaining those lions lost over the past 25 years. We are committed to seeing thriving savannah landscapes where Africa's people, its economic development and its lions all co-exist.

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