

Sustainable financing for southern partners and their projects in the mission of Ecosystem Alliance

November 2013



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1. Introduction

The Ecosystem Alliance, after its start in 2011, has progressively developed collaborative efforts to implement projects of more than 100 partners in 16 countries.

One important challenge of the EA partners is to ensure the financial sustainability of project results as well as the institutional set ups needed to achieve them on the longer term. Especially since funds made available through the Ecosystem Alliance will be depleted and not revolved after the programme's current timetable will have been completed. Pragmatically, we use the following concept of financial sustainability:

“An organisation is financially sustainable when it has the capacity to generate enough money, on a continuous basis, to maintain its core work of activities and organizational structure operational and effective, even if external donor funding is withdrawn”.

It is evident that ideally, by the end of the EA funding, results should be sustainable, e.g.:

- a micro credit scheme is self-supporting;
- the municipality is able to cover expenses for the (new) environmental planning;
- the mangrove-reforestation has become re-generative in itself;
- water fees are indeed sufficient to cover conservation of catchments.
and more....

A brief review of project documents which were presented by EA partners revealed that there is a clearly felt and specific need to strengthen institutional capacity to enhance the financial solidity of our ventures. To this effect we have identified a number of instruments that have been developed, tested and put to practice in different countries and by different stakeholders. E.g. mechanisms to generate financial resources needed to stabilize organizations and their conservation projects together with ecosystem users and -owners.

A summary of descriptions, information sources and further references, have been listed for EA partners in this “catalogue” of instruments for sustainable funding for ecosystem conservation and -development. Please note that this list is not exhaustive nor are the descriptions be considered as complete.

In addition to reaching their project targets, the exchange of knowhow between partners on effective and sustainable concepts for conservation and development is an important complementary goal. All EA colleagues are invited to use the information, and please contribute to this database with your comments and own experiences.

Reactions are very much welcome to the EA secretariat, IUCN Netherlands Committee, Amsterdam (<http://www.ecosystem-alliance.org/>).

2. Catalogue of sustainable finance strategies

BIODIVERSITY OFFSET

Definition:

Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken (*Source: BBOP website*).

The goal of biodiversity offsets is to achieve no net loss, or preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure and ecosystem services, including livelihood aspects (*Source: Business and Biodiversity Offset Programme, 2008*).

In the US a wetland banking scheme where public or private developers restore, establish or enhance an aquatic resource to compensate for any unavoidable damage they cause has been in existence since the 1970s. More than 400 wetland banks have now been established in a market worth more than \$3 billion a year. Initially, developers undertook the compensatory work themselves, but gradually a credits-based system emerged where a third party with expertise in conservation takes on the work. For example, Australia took on the credits-based system and launched a habitat-banking scheme in 2006. Known as Bio Banking, the initiative provides funding to restore sites, compensating for damage to biodiversity elsewhere. Also NGO's can play an important role and become a partner in bringing about compensation plans and designate related funds from land-use changers to new Biodiversity development or –restoration.

Conditions:

- Biodiversity offsets can take the form of 'case by case' (site-specific) offsets and habitat or species banking, or can proceed via in lieu fees (a permittee pays a fee to a third party in lieu of, that is instead of, conducting project-specific mitigation). They can potentially be applied for development in terrestrial, freshwater, coastal or marine environments. Development may include minerals extraction, built development, or other change of land use where there is a potential for biodiversity loss
- Biodiversity offsetting may also be applied to compensate for accidental damage to biodiversity (i.e. after it has occurred).
- In designing biodiversity-offsetting schemes, understand the capacity and role of local authorities to assist with their implementation.

- A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.
- A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.
- The design and implementation of a biodiversity offset, and communication of its results to the public, should be undertaken in a transparent and timely manner.
- A clear understanding of the meaning and implementation of 'in perpetuity' agreements is vital. If funding for the offsetting of biodiversity loss from a development project is to be fixed over a period of time, a transparent and comprehensive plan must detail what is to occur beyond this period.
- The relative costs of implementing different methods should be reviewed to establish the optimal approach (*Source: Website naturalcapitalinitiative.uk*).
- A development site should be divided into habitat parcels based on their distinctiveness (e.g. habitat category), which are called habitat type bands. These bands have numbers associated with them and they are used to calculate the biodiversity units/hectare to compensate the loss of habitat.
- Indirect impacts must also be considered, for example outside the boundary of any designated development site where further growth of human settlements will create undesirable negative impacts on biodiversity.
- It is recommended to offset biodiversity as close as possible to the development (land use change) site, as a result making it more relevant to the local eco systems and gain more acceptances from the local communities (*Source: Environmental-affairs blogspot*).

Pro's:

- Biodiversity offsets are a powerful tool in simultaneously delivering development and nature conservation
- Offsets are a source of investment for renewable energy and other projects to mitigate climate change, therefore filling the void that some governments have left by not stepping in to regulate and/or limit the production of carbon dioxide emissions.

Cons:

- Biodiversity offsetting schemes that reward restoration should exercise caution as this could act to create perverse incentives. For example, owners of high biodiversity value land may purposely allow/permit the degradation of their land in order to

receive the financial rewards associated with restoration. Measures to increase biodiversity offsetting must be carefully co-ordinated with existing initiatives that support conservation objectives, such as agro-environment schemes.

- Measuring the amount of compensation that would be suitable for significant residual impacts of any development could be a complicated and difficult job.

For more information:

- <https://www.gov.uk/government/publications/biodiversity-offsetting-guidance-for-offset-providers>
- <http://conservationfinance.org/upload/library/arquivo20130625133127.pdf>
- http://www.foresttrends.org/documents/files/doc_3094.pdf (Biodiversity offset handbook)
- http://www.naturalcapitalinitiative.org.uk/sites/default/files/docs/100622/NCI_Offsetting_Workshop_Report_FINAL1%283%29.pdf

BIO PROSPECTING

Definition:

Bio-prospecting involves searching for, collecting and deriving of biological material for its genetic, biochemical or molecular content that can be used in commercialized pharmaceutical, agricultural, industrial, or chemical processing end products.

In the early stages, prospecting largely centred on the plants from the forest ecosystem. However in recent times, various other forms of biodiversity like insects, algae and microorganisms have been explored with considerable success (*Kumar and Tarui, 2004*). The bio prospecting of plants and living organisms for pharmaceutical purposes is useful not only to the pharmaceutical firms but also to the host country and the local people, who are benefited from the ownership of the biological resources.

By the early 1990s, objections to uncompensated bio prospecting that does not share benefits with the source country became contentious. Since 1991, the Convention on Biological Diversity (CBD) has embodied the principles of compensated bio-prospecting globally. Compensated bio prospecting involves obtaining prior informed consent from the source country, sharing benefits, and promoting sustainable use of biodiversity. Where indigenous knowledge holders are involved, efforts are made to recognize and protect their rights. Benefits can take various forms, from royalties to negotiated advance and milestone payments, capacity building, facilities and equipment transfer, personnel training, sharing of research, and other forms.

Conditions:

- It must be ensured in all bio prospecting agreements that a part of benefit funding goes to support environmental protection in the regions supplying the plants in order to ensure long-term stability of the natural ecosystem.
- The terms and conditions of bio prospecting agreements under which indigenous people might benefit financially should be clear and transparent and free from ambiguity.
- The discoveries through bio prospecting should be equitably shared between the pharmaceutical firms and local communities and indigenous people involved in the discovery of natural products.
- Multinational pharmaceutical companies should offer training and expertise to the natives providing raw material for drugs. Providing jobs, training and expertise to the source countries would benefit local people with opportunities to progress. Other benefits can be grants in terms of equipment and education and technology transfer.
- However, every agreement for payment for research is complex and special expertise is required in order not to be deceived by large research organisations.

- Essential are the security of property rights for the local people.

Pro's:

- The economic value of plants or living organisms for pharmaceutical purposes is enormous. It is not only beneficial to the pharmaceutical industries engaged in R & D but also to host country and indigenous community, who gain from ownership of the biological resources and expect adequate compensation for resource use, especially after the Convention on Biological Diversity in 1992.

Cons:

- There is a growing concern that a number of pharmaceutical firms and biotechnology companies are exploring the forests, fields and waters of developing world in search of biological riches and indigenous knowledge with sole aim of developing patented and profitable products. Under the vast majority of cases, no money has changed hands and no recognition has been given to indigenous communities who selected, maintained and improved traditional plant varieties for medicine.
- The multinational companies engaged in bio prospecting are free to patent bio-materials but there are no effective guidelines and conditions defined for recognising and rewarding the contributions of indigenous people and other informal innovators who are responsible for nurturing, using and developing biodiversity.
- Although bio-prospecting agreements are sanctioned by the multilateral Convention on Biological Diversity, in most cases commercial bio prospecting agreements cannot be effectively monitored or enforced by source communities, countries or by the Convention itself (*Zakrzewski, 2002*).
- The monetary offer by multinational pharmaceutical firms to resource countries in most cases is not sufficient.
- Imbalance in ecosystem due to excessive exploitation of material resources is always a possibility.

For more information:

- http://www.princeton.edu/~edonado/theme_03_design%20Homepage.html
- <http://www.hillagric.ac.in/edu/covas/vpharma/winter%20school/lectures/21%20Bio%20prospecting%20Pros%20and%20cons.pdf>

BIO-RIGHTS

Wetlands International developed the concept of Bio- rights.

The essential aim is to restore and sustain wetlands by means of a bio-rights approach in collaboration with communities.

The Bio-rights concept adds a market-based incentive to conservation and development action. Communities that normally have few if any financing opportunities receive micro-credits for environmentally friendly economic development, such as sustainable farming or fishing, or ecotourism. As a condition for support, these communities also agree to refrain from activities that damage the environment, such as logging or poaching.

Instead of paying interest, the communities undertake environmental actions, such as replanting a degraded flood forest, restoring abandoned shrimp ponds or patrolling national parks to prevent illegal activities.

When the conservation action turns out to be a long-term success, for example if the replanted trees are in good shape after a year, the microcredits are converted into a definitive payment to the communities. In some cases this payment is managed as a revolving fund providing long-term capital for sustainable development.

The approach covers the costs communities face to change their current unsustainable practice into long-term sustainable livelihood strategies. This motivates them to take a long-term interest in their conservation work as well.

Wetlands International also provides trainings on how to improve livelihoods. In addition to the livelihoods grant, a rehabilitation fund is provided to the community in order to support the provision of seedlings, planting, maintenance and enrichment of the planted trees (*Source: website Wetlands International*).

For more information:

- "Biorights in theory and practice", van Eijk and Kumar, 2009 (Wetlands Int.)
www.wetlands.org

BLUE CARBON

Mangroves are among the most carbon-rich systems in the tropics, storing as much as 3,100-4,400 metric tons of carbon dioxide equivalent per hectare (t CO₂e/ha) in their biomass and the soil beneath them (Source: Donato et al., 2011). Carbon stored by mangroves, salt marshes, and sea grasses remains at risk. Habitat loss and destruction has released huge amounts of carbon. The causes of habitat conversion include aquaculture, agriculture, forest exploitation, industry, and urban development (Source: Giri et al. 2008; Duke et al. 2007; FAO 2007). Payment mechanisms to keep carbon in these habitats may help to reverse this loss.

Definition: Blue carbon is the carbon stored and sequestered in coastal ecosystems such as mangrove forests, sea grass meadows or intertidal salt marshes. They sequester atmospheric CO₂ through primary production, and then deposit it in their sediments. In fact, most blue carbon is found in the soils or sediments beneath the vegetation.

Conditions:

- Blue Carbon projects need to demonstrate “additionality” (the project must demonstrate that the reduction in greenhouse gas emissions through the protection or rehabilitation of Blue Carbon ecosystems would not have happened without the sale of Blue Carbon offsets)
- “Minimal leakage” (the decrease in greenhouse gas emissions by the Blue Carbon project does not cause an equivalent increase in emissions by another entity),
- “Permanence” (minimizing the risk that greenhouse gas emissions will occur after the Blue Carbon project has been sold as a carbon offset).
- The revenue generated by carbon credits sold in the carbon markets must be higher than the cost of protecting or restoring the Blue Carbon ecosystems (Source: Grimsditch G., 2011).
- Coastal habitats provide ecosystem services beyond carbon sequestration. These services may introduce a subset of stakeholders willing to pay specifically for blue carbon. Such a niche market could prove essential for investment in blue carbon pilot projects (Source: Gordon, D. et al, Financing options for blue carbon, 2011).
- Traditional sequestration projects and projects to conserve blue carbon differ in fundamental ways. The key is to identify and design financing mechanisms that will make carbon in coastal habitats eligible for payments.
- Blue carbon can be conserved within some REDD+ sites, for example mangroves, and financing for REDD+ offers the best parallel platform for financing blue carbon. REDD+ investment defines both potential funding for and synergistic backing of blue carbon.

Pro's:

- The rates of carbon sequestration and storage are comparable to (and often higher than) the sequestration rates in carbon-rich terrestrial ecosystems such as tropical rainforests or peat lands. Unlike most terrestrial systems, which reach soil carbon equilibrium within decades, deposition of carbon dioxide in coastal ecosystem sediment can continue over millennia.
- Coastal ecosystems are highly valuable for a range of services they provide. They protect people from coastal erosion, storms and flooding; also making them valuable for climate change adaptation. They provide food from fisheries, as well as a habitat for juvenile fish to thrive in. They can improve coastal water quality by trapping sediments and nutrients (Source: *bluecarbonportal.org*).

Cons:

- When these coastal ecosystems are degraded or destroyed they can become carbon dioxide sources due to the oxidization of biomass and organic soil.

For more information:

- <http://bluecarbonportal.org/>
- <http://www.grida.no/files/publications/blue-carbon/split/6-BLUE%20CARBON%20%20THE%20ROLE%20OF%20OCEANS%20AS%20CARBON%20SINKS.pdf>
- http://lindentrust.org/pdfs/2011-12_Financing_Options_for_Blue_Carbon_Duke.pdf
- <http://www.livelihoods.eu/livelihoods-fund.html> (from Danone)

CONCESSION FEES

Definition: Conservation concessions are management contracts between a government or community landowner and a conservation-minded buyer (concessionaire). They offer a novel way to compete directly with for instance timber firms seeking to lease rights to land.

In this way, conservation concessions hold the potential to protect a wide variety of critical terrestrial and marine habitats.

Conditions:

- Unlike a park, or an easement, which can lock up land forever, a concession is temporary, albeit renewable. Under a conservation concession agreement, national authorities or local resource users agree to protect natural ecosystems in exchange for a steady stream of structured compensation from conservationists or other investors.
- Concessions work well in places, where the opportunity cost of land is low, and you're not trying to push away anything else
- In areas with more serious economic competition, concessions would have to offer more attractive packages of benefits, such as higher payments and social programs.
- A conservation concession typically involves periodic payments in return for the conservation of a specified area. The opportunity costs of foregoing natural resource exploitation, including lost employment and government revenue from taxes, may serve as a basis for determining the amount of the payment. The benefits that are preserved by maintaining resources intact, such as traditional uses or watershed protection as well as the low-risk nature of the conservation payments should also be considered.
- A conservation concession offers regular, low risk payments of a known amount, denominated in a stable foreign currency, for as long as the terms of the agreement are met.
- To provide a concrete basis for monitoring and enforcement of the concession terms, a conservation concession agreement should include clearly defined norms and guidelines. Norms specify the mutually agreed-upon balance between conservation and development
- Conservation concessions may not be appropriate, for example, where guaranteed permanence is of preeminent importance or payments are impractical for political or institutional reasons. It is therefore important to view conservation concessions as a complement rather than as a replacement to national parks and other traditional protected areas.

Pro's

- The price of timber, together with other commodities, has stayed mostly flat over the past couple of decades, with little hope for improvement, as supplies have increased from plantations and newly exploited forests. Meanwhile, increasing government regulations in tropical countries have made the business more costly. The result is that well-funded NGOs can often outbid cash-strapped timber firms for resource right
- A concession reaps revenues, making it much more appealing to host governments
- The limited term of a conservation concession makes it an attractive option for resource owners. At the same time, long-term conservation is possible because of renewable terms, low opportunity cost, and high willingness and ability to pay.
- Concessions can also serve a valuable bridging function by providing a politically acceptable transitional status between lands allocated to resource development and those given permanent protection. As an alternative, conservation concessions can be used to conserve large areas of land over an entire region as a temporary measure until a formal network of protected areas can be planned and implemented.
- A conservation concession yields immediate, transparent conservation that can be easily identified on a map and monitored based on readily verifiable norms. Therefore this approach can demonstrate clear conservation benefits to potential biodiversity investors.

Cons:

- The people in charge of reporting on the effectiveness of the investments are the people with the greatest stake in the project's success: the concession owners and the governments receiving their payments. This raises an obvious credibility problem, one compounded by the fact that governing institutions are generally weak in the countries hosting the concessions. The question becomes much more serious if for-profit firms buy concessions, and seek to monitor their own henhouses.

For more information:

- http://www.conservationfinance.org/guide/WPC/WPC_documents/Apps_09_Rice_v_2.pdf

CHARITY LOTTERIES

A good way to raise money for your project or organisation is to set up a lottery. The proceeds of the sales of these tickets partly go to your organisation/Charity (in the Netherlands 50%), partly into admin to maintain the lottery and partly to hand out prizes to lottery winners.

Definition:

“A method of selling numbered lottery tickets of which a great part of the sales goes to charity”

Conditions:

- Greatest % (75-85) of the returns on lottery tickets goes to (a selection of) charity and prizes
- To be successful, support and publicity through mass media like TV shows (e.g. example in NL) is important
- They are privately operated, with a license from the national government;
- Fundraising for NGOs social and environmental goals is their principal aim;
- They donate a substantial part of their income to their beneficiaries and make no private profits;
- Their funds are distributed by an independent body without political interference (Source: website ACLEU).
- The drawing needs to be transparent and formally audited
- There need to be clear rules and regulations for ‘benefit sharing’ towards the organization/charity.
- The lottery system needs to be checked by independent consumer organisations and authorities or notary to guarantee the lottery is random
- A charity lottery should be a reliable partner to the organisations it supports, therefore funding should be long-term

Pro’s:

- It creates a win-win situation: for individuals purchasing a lot to have the chance to win a monetary price higher than price of the purchased ticket, and for the charity to get some secured funding
- It can create a sustainable source of funding for local NGO’s, conservation areas in particular when there is a growing middle class who is able to purchase the tickets.
- Buyers of ticket have the ‘feel good’ sentiments contributing to social and environmental goals.

Cons:

- There is as risk that the lottery gets reputation damage and is mistrusted and seen as a corrupt institute due to other existing lotteries that don't operate in an independent and transparent way.

For more information:

- <http://www.acleu.eu/Charity-Lotteries/Definition-of-a-charity-lottery.htm>
- <http://www.novamedia.nl/web/What-we-do/Our-unique-format.htm>
- <http://www.postcodeloterij.nl/Organisatie/Pers/FactsheetEnglish.htm>

CROWDFUNDING

The following explanations on the concept of crowd funding are provided by Stanford Business School, and focus on the private entrepreneur who seeks financial resources for his new venture. The same principles can be useful to consider for not-for-profit undertakings, like nature conservation and local development. Crowd funding could be linked to 'impact investment'.

The term crowd funding derives from another neologism: crowd sourcing, which is defined as "outsourcing jobs which are typically performed by employees to the public".

Definition: "The use of small amounts of capital from a large number of individuals to finance a new business venture, while making use of the easy accessibility of vast networks of friends, family and colleagues through social media websites".

Conditions:

There are the four main types of crowd funding:

1. Equity-Based Crowd funding: Investors receive a stake in the company.
2. Lending-Based Crowd funding: Investors are repaid over a period of time.
3. Donation-Based Crowd funding: Contributions go towards a charitable cause.
4. Reward-Based Crowd funding: Donors receive tangible, non-monetary rewards such as a watch or a pre-released CD, education events and/or free entry to natural parks.

Pro's:

- Crowd funding has the potential to increase entrepreneurship by expanding the pool of investors from whom funds can be raised beyond the traditional circle of owners, relatives and venture capitalists.
- Crowd funding minimizes the tedious fundraising process (and its associated time and cost) so entrepreneurs spend more time where it counts, on the business. Humble entrepreneurs are no longer disadvantaged when trying to launch companies from scratch.
- Anyone who is interested and has a little capital to spare can participate in financings. Ultimately, the industry shifts from "rich gets richer" to "smart gets richer."

- Complex, difficult, and niche ideas get funded. Entrepreneurs who are not constrained to 5-7 year payback windows can pursue models with high creativity, democratized invention, and positive third party impacts in society.
- Investors can not only give funds, but also valuable feedback about your project
- Crowd-funding websites allow for donors and causes to make a connection, rather than relying on conventional fundraising that might target, for example, a particular geographic region. Because of their limited resources, many small charities, for example, tend to be overlooked in favour of more established ones. Crowd funding allows these causes to find supporters via the Internet and social media.
- Crowd funding has the potential to exceed the funding goal.
- You retain complete ownership of the entire business and project.
- You can begin receiving pledges as soon as you make a plan and create a compelling pitch.
- Small businesses, film, music, dance, theatre, all sorts of causes have used it. People who don't have health insurance have used it. An example: a couple couldn't get pregnant and couldn't afford IVF treatment; they raised money on Indiegogo to get a treatment and have a baby.

Cons:

- By putting less of their own money and effort in the game and no longer facing investors one-on-one, entrepreneurs lose out on a truly valuable step of convincing others.
- Crowd funding information is highly asymmetric. Investors are susceptible to fraud or just plain incompetence. Since they're further removed, investors find it difficult to obtain the necessary data to make smart decisions. Some investors won't understand many of the risks associated with crowd funding.
- Crowd funding is not a solution for every business model and is not considered to be a sustainable source of revenue. It takes a lot of work and is based on having a pre-existing audience or being able to gain one in a short amount of time. Moreover, because it deals with the collection of money and soliciting investments, you have to be extra careful not to violate any existing laws or regulations, i.e. securities laws (*Source: Website:gsb.stanford.edu/ces/crowdfunding-101*).
- Crazy ideas get funded. More ideas get funded today than can possibly return capital, but with crowd funding the percentage of successes markedly decreases. A lion's share of crowd-funded investments will never make money and investors will be out-of-luck. While small, fragmented investments limit the catastrophic risk to any single investor, too many failures will give crowd funding a bad rap and prompt regulatory tightening (*Source: Website:gsb.stanford.edu/ces/crowdfunding-101*).
- You could end up spending a lot of time and effort and still not reach your funding goal.
- Competitors could steal your ideas since they're published.

- Publicly concern among supporters that without a regulatory framework, the likelihood of a scam or abuse of funds is high.
- Crowd funding is becoming more and more competitive.

For more information:

- <http://www.oneplanetcrowd.nl/over> (crowd funding voor duurzame projecten)
- <http://joshuamonen.com/wp-content/uploads/2012/09/Crowdfunding-Article-for-AMEX-1of3.pdf>
- <http://www.growthink.com/content/pros-cons-crowdfunding>

DEBT FOR NATURE SWAPS

Definition:

A debt-for-nature swap involves the cancellation of external debts of a developing country in exchange for local currency funding for nature and environmental protection in that country.

This financial mechanism has been developed in the eighties of the last century when many developing countries became highly indebted. Debt servicing (repayments and interests) to corporate lenders, bilateral financiers and multilateral financial institutions seriously hampered economic development in these countries.

Large organizations such as Conservation International, The Nature Conservancy, and the World Wildlife Fund have participated in international commercial debt-for-nature swaps. The NGO buys the debt at a certain discount from international commercial creditors and transfers the debt title to the debtor country. In exchange the country agrees to settle part of the original debt in local currency to finance certain environmental policies or funding of conservation programs. In total, recorded third-party debt-for-nature swaps have generated nearly US\$140 million in conservation funding from 1987-2010 (Source: GEF).

The same principle applies to bilateral debt-for-nature swaps, which take place between two governments. In a bilateral swap, a creditor country forgives a portion of the public bilateral debt of a debtor nation in exchange for environmental commitments from that country. An example of a bilateral swap occurred when the U.S. Government, under the Enterprise for the Americas Initiative, forgave a portion of Jamaica's official debt obligations and allowed the payments on the balance to go into national funds that finance environmental conservation. These funds established the Environmental Foundation of Jamaica in 1993. Multilateral debt-for-nature swaps are similar to bilateral swaps but involve international transactions of more than two national governments. Recorded bilateral and multilateral debt-for-nature swaps have generated nearly US\$900 million in total conservation funding from 1987-2010.

Debt-for-nature swaps do not compromise national sovereignty since no property exchange takes place. Generally, this mechanism involves large capital amounts, strong negotiating leverage and a positive attitude of government departments and financial authorities.

Realizing a successful swap means intensive cooperation between many stakeholders.

In general debt reduction is considered an important contribution to poverty alleviation. Hence, debt-for-nature swaps go mostly in a package with poverty alleviation programs.

Investment in conservation also demonstrates economic returns. For example, Costa Rica has put debt-for-nature funds to good use in establishing and improving parks and

preserves, and it has seen marked improvements in tourism, improved water quality, and increased energy output even in the short term.

In most countries Trust Funds (with endowments) have been established to manage and control the use of the funds generated from these swaps, governed by representatives of different stakeholders: Government, Banks, NGO's, etc. Former creditors will require a role to supervise implementation of deals.

The role of NGO's in establishing debt-for-nature swaps and materializing benefits thereof can be important, e.g.: initialising steps to get the process started, mobilise support from all authorities and external stakeholders, taking part in institutions that will manage proceeds and monitor implementation of agreements.

Pro's:

- Through debt swaps considerable resources can be mobilised.
- National resources are re-directed from debt servicing to environmental- and poverty alleviation purposes
- If properly controlled and invested these resources can provide for long term funding, permitting good financial planning.

Cons:

- Processes to realise debt swaps are complicated, time consuming, and involving many actors
- Donors have to pledge large amounts to participate in swaps, this is why this is sometimes considered 'expensive funding'

For more information:

The Conservation Finance Alliance is an international network of environmental funds, where a lot of know how is available on debt-for-nature swaps and other fund raising mechanisms.

- <http://conservationfinance.org/guide/guide/index.htm>

MICRO CREDIT

Where conservation of ecosystems requires alternative livelihoods for the communities directly depending on their bio-resources, individual investments in new productive assets for these people may be needed. Micro credit can be instrumental for these investments.

However, the following considerations should be taken into account:

- Micro credit is not a panacea for poverty reduction. For the poorest that do not have entrepreneurial capacity, other development instruments are more appropriate.
- Taking a loan and paying it back supposes entry to markets for inputs and final products to sell, this means business where money plays a role. In self-subsistence situations this is often not the case.
- From the lender's position, assessment of credit applications requires a cool, technical and business like approach: a business plan must be financially feasible and risks must be justified.
- For a new small entrepreneur, it may be very difficult to be aware of how a micro credit scheme works, in a monetized environment (market).
- Of critical importance is a solid 'pay-back morale'. Writing-off debts too easily (very often for obvious humane, or worse, political reasons) undermines this morale and may endanger the future of the credit institution and the whole system as such.
- Political influence can be damaging. Government rules are not always consistent and sustained.
- The transaction costs for micro credit are generally high, due to labour intensive assessments of credit applications, high risks, collection of repayments etc. A small credit requires as much processing as a large loan. Consequently, interests rates on micro credits must be high, to cover costs and risks and to maintain the capital in the institution and sustain the delivery of its financial services.
- Due to high costs and risks, conventional banks will not easily give micro credits. Specialized micro credit institutions (banks) must have well trained staff, thorough credit- technology and efficient procedures, in order to be really effective.
- Generally speaking it is not recommendable for an NGO with social /environmental or poverty reduction objectives, to manage credit schemes. Too often we have seen insufficient expertise and competitive objectives. The better option is to cooperate with a specialized bank or well-equipped and registered financial institution.
- Collective (or group) credit systems (like the well-known Grameen system) can be effective, provided that they are closely monitored en supported by a strong vision on solidarity within the group using the loans
- Generally women know better how to use micro credit.
- Micro credit systems CAN produce miracles, IF well managed and used. If not they may produce long lasting frustrations.

- A loan for a small coffee farmer is different from a credit for a shoemaker. Every category needs special attention and different criteria. Micro credits for ecosystem related productive activities would require their own specific analysis.

For further information on this subject:

- <https://openknowledge.worldbank.org/bitstream/handle/10986/12272/9780821389270.pdf?sequence=6>
- <http://www.inclusivefinanceplatform.nl/microfinance/inclusive-finance>

NON-TIMBER FOREST PRODUCT (NTFP) SALES

There is an increasing focus on the potential role of forests and NTFPs in the economic development and poverty reduction strategies.

Definition: All biological materials that are found in the forests, excluding the timber, are called NTFPs. These include consumptive category of goods like wild food plants, spices, honey, oils, fodder, etc. on one hand and the non-consumptive items like gums, resins, dyes, wax, lac, brooms, fibres, fuel wood, charcoal, fencing, wildlife products, raw materials like bamboo, cane, etc. on the other.

Non-timber forest products (NTFPs) have received increased attention and are making significant contributions to local economies. There are numerous examples where NTFP's indicate an income share greater than that from cash crops or informal cash incomes. They are seen as a sustainable way of generating income for local communities.

Conditions:

- There are four basic steps for sustainable management and collection of wild NTFPs: a) identification and management of the collection area; b) resource assessment; c) sustainable harvesting procedures/guidelines; and d) cultivation/domestication of viable NTFPs and MAPs (Medicinal and Aromatic Plants).
- Local markets play an important role in enabling forest-dependent households to realise a significant part of their cash income through sale of NTFPs. Increased urbanisation (as a result of rural to urban migration) is a significant factor that expands the size of local NTFPs.
- The successful commercialisation of an NTFP depends critically on the existence of an accessible market, potential demand, and the access by producers, processors and traders to market information. Market information is very important. However, instead of an accessible marketplace, selling to intermediaries is also OK. Some key entrepreneurs are able to find niche markets with sufficient demand to support the whole value chain.
- Households have very different powers over setting prices depending on the product. While there may be a certain degree of integration in the chain, this does not make it necessary to (ab) use this.
- Sustainable management of NTFPs requires precise scientific information that ultimately augments responsible management as well as responsible business practices, and more importantly enhance customary rights of indigenous people and local communities through increasing knowledge base existed.
- An integrated approach is required for proper and sustainable management of NTFPs. The approach should include factors like understanding the ecology of targeted species and surroundings, resource inventory, assessing market dynamics

and demand/supply chain, and empowerment of communities. (Source: WWF; NTFP's Nepal, 2011)

Pro's

- During the past two decades, the use of NTFPs has gained a lot of interest because their exploitation has been considered to be less destructive to the ecosystem than timber harvesting and other forest uses. The potential income from NTFPs could be considerably higher (Source: Arnold and Pérez, 2001).
- Harvesting of NTFPs such as those of herbs and shrubs origin and parts of trees (leaves, flowers, fruits, seeds, exudates, etc.) are ecologically less destructive compared with cutting and felling of trees.
- NTFPs of herbs and shrubs origin may become harvestable in a year, compared with trees that may take decades to attain maturity and become harvestable.
- Considering the effort, time invested and risk factors, economic returns from NTFPs are far higher than that of timber.
- Generally, poor people who are dependent on forest resources cannot wait for long periods to get returns from the management of their forests
- NTFPs provide important community needs for improved rural livelihoods; contribute to household food security and nutrition; help generate additional employment and income; offer opportunities for NTFP-based enterprises; contribute to foreign exchange earnings; and support biodiversity and other conservation objectives (Source: FAO, 1995).
- NTFP activities usually reach the poorer (but not the poorest) members of the community. NTFP activities are often done out of necessity, i.e. leading to poverty reduction, with a lack of alternative income generating activities. Some NTFPs are really useful in covering some basic cash needs. NTFP activity can constitute an important part of the income and sometimes provides for the only cash income

Cons:

- Despite their overall economic importance, studies on NTFPs have shown that the proportion of the final sale price that the small-scale collector, producer or processor gets is extremely small and therefore, that profitability is low. The main reason why NTFP enterprises are not more profitable is the lack of an organized information system to help individual producers organize production and distribution, determine appropriate prices, select markets, follow supply and demand or promote merchandise. Even when there is market information, it is frequently not disseminated to local small-scale producers.
- Lack of knowledge was found to be a major and significant barrier to further NTFP sales (all products) and hence to further entry.

Risks:

Over harvesting and premature collection along with habitat destruction, open grazing, forest fire and soil erosion are major threats to the sustainability of NTFP conservation. Sustainable management with community stewardship offers best solution to these problems.

For more information:

- http://awsassets.panda.org/downloads/ntfp_booklet__finalpdf.pdf

PAYMENT FOR ENVIRONMENTAL SERVICES (PES)

Ecosystems provide a whole range of services upon which our society depends, such as environmental goods (Food, fuel, water), regulating services (climate regulation), supporting services (nutrient cycling), and cultural services (educational, recreational and spiritual). However, many of these ecosystem services are either undervalued or have no financial market value at all. Payment for these ecosystem services (PES) focuses on maintaining the flow of this ecosystem service in exchange for something of economic value for the producers or conservators of the service. The payment adds a benefit that would not have been there without PES.

Definition: a market-based approach to conservation based on the twin principles that those who benefit from environmental services (such as users of clean water) should pay for them, and those who generate these services should be compensated for providing them. There are two characteristics in a PES mechanism: 1. Service providers receive direct payments conditional on their providing the desired environmental services (or adopting a practice thought to generate those services). 2. Participation is voluntary (*Source: website syngentafoundation.org*). PES is a voluntary, negotiated agreement, not a command-and-control measure. Potential services providers must have real land use choices, with the land use providing the service usually not being the one most preferred by the land user (*Source: Website Cifor.org*).

Wunder (2005) defined the following 5 criteria of PES:

1. a voluntary transaction in which a
2. well-defined environmental service (such as water), or a form of land use likely to secure that service (a forest)
3. is bought by at least one buyer of the ecosystem service
4. from a minimum of one provider of Ecosystem service
5. if and only if the provider continues to supply that service (conditionality).

Conditions:

- Base payments to providers on payments by users
- To actually deliver services: getting the science right is critical
- Taylor mechanism to specific local conditions (*Source: website worldbank.org*)
- It is important to understand the wide range of issues affecting ecosystem service delivery including market failures. Not all PES instruments may require specific

government intervention. Indeed it is important the government only acts where there is a strong justification.

- Spatial considerations for ecosystem service delivery are critical. These relate to both the appropriate scale over which an ecosystem service is delivered as well as the spatial scale of beneficiaries.
- It is important to ensure that PES are delivering benefits beyond what are already part of 'business as usual' or as required by existing regulation. It has to show an added value.
- Evidence on distributional impacts would be expected to be a key part of the assessment and PES design.
- Looking at opportunity costs is very critical. It has to be financially attractive to choose for PES. The protection of the ES has to be preferred over the current land use. If opportunity costs are too high (the non-preferred land use to favourable), PES is not likely to work.
- The role of the intermediary is very important in any PES scheme in developing countries, because of the limited capability of the ES providers for managing direct payments. Honest and trusted intermediaries are therefore one of the key factors of success.
- Higher levels of social cohesion and trust within the community and its external linkages are associated with lower transaction costs. This suggests that investments providing non-financial benefits to communities, such as strengthening social capital, can help reduce overall costs of PES implementation (*Source: Leimona, B., 2010*).

In those circumstances where PES could work in principle, there is then a series of design features and some complexities that need to be further assessed and resolved. These include:

- How to package multiple ecosystems services into PES schemes, e.g. single buyer for a package of services or different buyers;
- Relationship between land use and ecosystem. In the design of PES has to be a clear relationship between the type of land use being promoted and the provision of ecosystem services. For example forests (land use) regulate the flow of water (ecosystem service). If the area is increasingly affected by floods in rainy times, causing lot of material damage. In areas covered by forest the area is not affected by heavy floods as the standing of trees will regulate the flow of water and prevent floods. It is then good to show the clear relationship between land use and ecosystem service.
- Understanding the appropriate scale for delivery. Seen from the perspective of suppliers and buyers how the implementation of PES scheme can be most efficient and effective.

- Direct user versus Government-financed schemes. A user-financed PES may have greater potential to be efficient because it can be better targeted, but the potential for this type of PES will depend on various factors;
- Payment arrangements, e.g.: output- versus input-based; constant per hectare versus differentiated payments; time period for payment; etc.;
- Measuring and monitoring, e.g. there is a need to ensure stable delivery of ecosystem services, so monitoring will be an important component of the design of a PES scheme;
- What are the appropriate governance mechanisms, e.g. role of intermediaries in bringing together buyers and providers? (Source: Defra.gov.uk, 2010).

Pro's:

- PES generates new financing, which would not otherwise be available for conservation;
- It is efficient if it generates services whose benefits exceed the cost of providing them.
- Does not conserve what is not worth conserving
- Potentially very sustainable, as it depends on the mutual self-interest of service users and providers and not on the whims of government or donor funding (Source: website *syngentafoundation.org*).
- These market approaches provide opportunities not only for recognising the importance of these services but linking more directly those who benefit from ecosystem services to those who can deliver them and to do so in cost-effective ways
- If more ecosystem services could be incorporated in the formal economy, opportunities for innovation and investment in their provision might increasingly become mainstreamed
- By linking up beneficiaries and providers, PES also provide opportunities for engaging a broad spectrum of stakeholders which could deliver improved outcomes for the natural environment and its many beneficiaries at local, catchment, national, and, in the case of climate regulation and biodiversity, potentially international level (Source: Defra.gov.uk, 2010).

Cons:

- Buyers (e.g. government agencies) perceive a risk of leakage through the implementation of PES. Leakage refers to the displacement of activities that damage service provision in areas outside the geographical zone of the PES.
- An effective implementation of PES requires also good institutional design and governance. This is rarely met due to the challenges in developing countries.

- The definition of PES assumes a transaction that is voluntary. In many countries there is the likelihood of free riding on the demand side, so the PES schemes are not fully voluntary.

More information:

- <http://www.unpei.org/PDF/ecosystems-economicanalysis/PES-Getting-Started.pdf>
- <http://archive.defra.gov.uk/environment/policy/natural-environ/documents/payments-ecosystem.pdf>
- http://www.serena-anr.org/IMG/pdf/01_Presentation_Montpellier.pdf (Redefining PES)

SUSTAINABLE TOURISM

In areas where local communities put increased pressure on natural resources, the development of additional livelihoods can take away this pressure. Sustainable tourism is such a livelihood that can serve as a replacement of part of a traditional livelihood to release the pressure on natural resources.

Definition: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (Source: UNWTO.org).

Sustainable tourism should:

- 1) Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- 2) Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- 3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Conditions:

In the development of sustainable tourism the following has to be taken into account:

- Sustainable tourism is an ADDITIONAL livelihood, not an alternative. Due to the risk and volatile nature of the tourism industry, tourism should ADD to the existing livelihood, not replace it to spread local people's risk on income generation.
- The bottom line of Sustainable tourism should always be the conservation of natural resources. Without this the very core of your business activities will in time be destroyed.
- A good understanding and agreement of the natural and cultural resources that are unique to the area and can attract tourists, adequate infrastructure and good potential for HR capacity to provide services are basic requirements before developing tourism. Just a nice forest with waterfalls is not enough.
- Sustainable tourism is not a panacea to bridge nature conservation with poverty reduction. That's why it is important to integrate tourism with the development of small businesses/existing livelihoods (like weaving, honey, handicrafts) to spread risks and revenues.

- Develop a sustainable tourism mosaic. Diversify tourism products and activities to attract a range of (nature/culture oriented) target groups.
- There should be a consensus between communities and (Local/provincial/National) government on the nature and location/area where tourism will be developed. This agreement should be stated in an MoU and indicated on a map.
- There is the danger that Ecotourism in one village acts as a pull factor for other villages nearby. This will increase pressure on natural resources and enhance competition in the first village where tourism is developed.
- Equally there should be care for the settlement of foreign businesses in the village. Foreigners have a better capacity and understanding of the western tourist and can easily out-compete local businesses for which tourism was set up in the first place. This can be prevented to set conditions under which foreigners are allowed to operate in the village.
- To equally distribute revenues from tourism activities among the community a benefit sharing mechanism needs to be developed. Part of the revenues will come to the ones done the activity other part flows into community fund.
- It is important to always keep the pace of the local community. If more training is needed, provide it. Without thorough investment in the first stage of development, the operation is highly likely to fail.
- Let communities contribute as much as possible themselves in the development of tourism. DON'T donate or let outsiders do the work. Creating ownership has shown to be crucial in the long-term operation and success of a project. Local communities often protest initially as in the past they just had outsiders do the work for them or some NGO's pay them a fee or food to contribute. Past experience has shown that most of the people joining just do it for free food and the stipend they get. So when under those settings the project leaves, communities have no knowledge how to maintain what is set up and above all as they have not invested own time, energy or money in it, there is no motivation to keep it going. The result of when you do let them put own energy in the project and not give them food or stipend is that you are not only left with motivated people at the start of the project, but when the project is finished they have a feeling of pride and responsibility to maintain what they have set up.

Types of tourism revenues:

There is a variety of fees, licenses and permits that are frequently used as a source of revenue in the tourism industry to give access to natural areas.

Conservation entrance fees: Tourists pay a fee to enter a natural or protected area

Concession fees: Contract between a protected area and a businesses or individual under which those businesses or individuals are permitted to operate within a protected area and

to use certain land or facilities owned by a protected area for a specified period in exchange for making payments to the protected area.

Rental of equipment: For some activities, like camping, biking, etc. tourists can rent the necessary equipment for a small fee.

User fees: Fees charged to visitors for undertaking specified activities or for use of specified facilities within protected areas, i.e. diving, fishing, and camping.

Trophy hunting: Applied with success in Southern Africa where there is sufficient game that can be 'harvested'. There is good money in this industry and it certainly contributes to the management of a protected area. Trophy hunting is managed as part of a programme administered by a government, community-based organization, NGO, or other legitimate body. It is characterized by low off-take volume and hunters paying a high fee to hunt an animal with specific "trophy" characteristics.

Other sources of revenue are:

Specialised tours: Target tourism to special group, such as birding, photography. Because of expertise required it has potential to generate good revenue for conservation.

Accommodations, transport, and guiding: Local people benefit from making their house available for tourists (homestays), provide transport or guide service to the tourists. Essential here is quality control and certification based on the training received and level of capacity.

Merchandise sales: Local people can sell products related to their traditional livelihood (like honey, rattan, weaving) to tourists

Food sales: Local people can sell local food to the tourists and get extra income from this

How sustainable tourism can help local NGO's:

In areas where local NGO's are working to, among others, develop tourism to support local livelihoods and protect the environment, tourists can be offered the opportunity to make donations to this local NGO. This can be through donation boxes at tourism accommodation sites or in little towns nearby that serve as tourism hubs.

For more information:

- <http://www.panparks.org/learn/wilderness-resource-bank/pay-per-nature-view-understanding-tourism-revenues-for-effective>

TRUST FUNDS

Conservation Trust Funds are innovative financing mechanisms developed to provide long term financing for conservation and environmentally sustainable development. Over 50 Conservation Trust Funds have been established in Africa, Latin America and the Caribbean, Asia and Eastern Europe, and new funds continue to be launched in these regions.

CTF's may use different mechanisms to finance conservation and development projects, and can draw from different sources to fund their mission.

The CTFs that manage endowments generally spend only the income from their investments, maintaining the capital as a permanent asset. This allows for longer term funding for projects such as the management of protected areas.

Other CTFs manage sinking funds, spending the income from investment as well as a portion of their capital each year until the fund is expired. This type of structure allows sinking funds to finance larger, medium-term projects or a series of small grants.

The sources from where capital can be provided to create trust funds are very diverse.

From private grants and legacies, government subsidies, grants from private companies, to bilateral or multilateral project funding (such as from GEF). In several cases debt swaps have been used whereby government debts are partly converted in local down payments to establish conservation trust funds.

The choice of options for financial instruments and funding sources largely depend on institutional conditions prevailing in the country: fiscal rules, political stability, legal security. In the USA trust funds are generally accepted phenomena to finance schools, universities, hospitals and protected natural areas. Fiscal advantages for grant makers are the main reason for sustaining these funds.

Definitions:

Endowment Fund: A fund spending investment income or a fixed percent of its asset value each year for conservation purposes, whilst preserving and growing the capital as a permanent asset.

Sinking Fund: A fund that disburses its entire principal and investment income over a fixed period of time to serve its stated goals.

Revolving Fund: A fund that receives new income on a regular basis, such as tourist taxes, user fees, etc., to replenish or augment the original (working) capital.

Conservation trust funds are governed by an independent board of directors and often established to anchor other sustainable financing mechanisms by providing a transparent and efficient way to manage funding for conservation purposes. In some cases, funds have been established in third-party countries due to legal constraints or administrative necessity.

Operations of trust funds may extend to training, advise, monitoring and evaluation of conservation management (including government staff) (*Source: Website Conservation Finance Alliance*).

For more information:

- <http://www.conservationfinance.org>
-

Reduction of Emissions from Deforestation and forest Degradation

What and why

Reducing Emission from Deforestation and Forest Degradation (REDD+) is a mechanism aimed at stopping tropical deforestation worldwide, based on an international agreement under the United Nations Framework Convention on Climate Change (UNFCCC). The terms of this agreement are still being negotiated and are expected to result in a new 'protocol 2015' after which it should go into effect after 2020.

The tackling of global warming requires the gradual but large-scale transition to low carbon economies and production processes. REDD+ aims at reducing greenhouse gas emissions, which result from deforestation and forest degradation. Deforestation at present is probably responsible for more than 20% of total CO₂ emissions on our planet, hence a strong justification for effective REDD mechanisms. The "+" proposition has the additional potential to achieve significant benefits for biodiversity conservation and sustainable development in low-income countries AND for forest dependent communities.

In light of this focus REDD+ supports a broad range of forest activities, each of which can contribute either to reduced emissions of CO₂, or enhanced capture of CO₂ from the atmosphere.

These elements, called the 'scope' of REDD+, include:

1. Reducing deforestation
2. Reducing forest degradation
3. Conserving forests
4. The sustainable management of forests
5. The 'enhancement of forest carbon stocks', in other words, the rehabilitation and restoration of deforested land and of degraded forests.

The way to...

To become effective, an internationally agreed REDD+ mechanism requires a comprehensive set of conditions, monitoring instruments and institutional capacities. To achieve this, a three phased approach has been decided upon to make the mechanism operational.

Phase 1. Readiness:

Formulation of national REDD strategy development will need capacity building, institutional strengthening, and governance reforms. Outcomes: designs for reference levels, setup of

systems for Monitoring, Reporting and Verification (MRV), consultations with broad stakeholder groups including local communities.

Phase 2. Implementation of National REDD strategy.

Set reference levels, implement policies and measures, improve MRV, continued engagement and participation of local communities, setting up of safeguard mechanisms.

Phase 3. REDD+ is linked to markets.

Quantified reductions in Green House Gas (GHG) emissions and increased removals of CO₂; payments for performance through carbon credits markets.

Phase 1 (readiness) has particularly been proposed in order to make it possible for countries with tropical forests to prepare well for REDD+. Without such thorough preparations, it would be difficult to ensure effectiveness and efficiency in achieving its environmental goals, and last but not least, equitability in benefits for broad stakeholder groups, especially vulnerable communities that depend on forest resources.

This phase should also be used for piloting and demonstration activities on the ground, crucial for the development of sound governance arrangements. The access and land rights of local communities have to be clarified and, if possible, guaranteed through new legislation. Equitable systems for the distributions of benefits must be designed.

Phase 2 and 3 are designed and formulated with future regulated (compulsory, compliance) markets in mind under the new UNFCCC protocol. These markets will at the earliest come into effect after 2020.

In order to design an adequate global REDD+ mechanism, project developers must make sure that there is confidence that:

- 1) the conservation activity would not have taken place in the absence of REDD+ (additionality)
- 2) that the achieved protection is not reversed in the future and
- 3) the deforestation that is avoided is not simply moving to another area (Leakage).

Only if these dynamics are ascertained, the CO₂ emission reduction certificates can be issued and traded.

In order to have a uniform system with data results that are comparable between countries all projects and programs around the world have to use standardized methods to Monitor, Register and Verify (MRV) CO₂ reductions and increases in CO₂ stocks.

Because REDD+ should not result in negative outcomes for biodiversity and local communities, safeguards have been designed that should avoid such impacts.

Perspectives

Although compulsory markets with MRV at national or sub-national level will not be operational before 2020, governments and civil society organisations are already making preparations for REDD+ programs. Projects are in the meantime however also developed for the voluntary carbon markets. There are quite a number of projects generating credits that are purchased by companies in the context of their voluntary CO2 emission reduction targets and as part of their CSR (Corporate Social Responsibility). Experiences of civil society actors with such projects generate important lessons.

One of the main lessons is that the development of a REDD+ project up to the stage of the delivery of carbon credits (i.e. cash returns) is a time consuming affair that requires enduring and dedicated efforts as well as considerable financial resources. It also requires a solid capacity of an organisation to take on such a process, in particular for the certification process.

For projects in the voluntary market, the Verified Carbon Standard (VCS) is used to certify the carbon reduction/capture, whilst the Climate, Community and Biodiversity Standards (CCBA) are used to certify that communities and biodiversity are not negatively impacted through the project.

Increasingly, REDD+ is embedded in broader strategies to green economies and supply chains. Forests in this sense are not looked at in isolation but are approached as landscapes including all socio-economic activity in and around the forests that influence them.

The cost of REDD+:

As stated above, the costs related to 'getting ready' for REDD+ are considerable. Activities that have to be funded during the first, the readiness phase, are:

- Capacity building
- Design of REDD+ policies
- Design of safeguard information systems
- Design of MRV systems
- Design of benefit distribution mechanisms, the establishment of emission reference levels
- A stakeholder engagement and consultation process and
- Putting the institutional arrangement in place needed for all these activities in place.

One 'ready' cost to implement transactions based on REDD+ will appear, like:

Opportunity costs: the net benefits forgone by not converting forests to other land uses

Transaction costs: the costs necessary to perform a transaction involving a REDD+ payment, including the costs to external parties, such as market regulators or payment system administrators to determine that the REDD+ programme has achieved emission reductions.

Implementation costs: the costs directly associated with the actions leading to reduced deforestation, and hence to reduced emissions (for more details refer to literature mentioned in the footnote).

Funding the readiness phase

REDD+ preparations have in anticipation already been under way since 2007, largely supported with financial and technical support from Official Development Assistance (ODA) by donor countries and through NGOs. Voluntary forest-carbon projects have been developed since the 1990s by conservation organisations and sometimes with help from the private sector. Funds to support REDD+ readiness phase, can be sought at multilateral and bilateral levels.

Multilateral funds: the most important agencies providing funding sources to countries are the FCPFUN-REDD and the Forest Investment Program (FIP) Regional international options are Congo Basin Forest Fund (CBFF), Amazon Fund and the Indonesia Climate Change Trust.

Bilateral funds: Bilateral agreements are also reached between REDD+ and donor countries such as the program that Norway funds in Guyana and the Letter or Intent signed between Norway and Indonesia. Countries such as the US, Japan, Germany, UK, Netherlands, France and Australia have made considerable amounts available.

Domestic sources: Domestic public funding and private sources are in some countries also made available for REDD+ programs. Such funds can be used to help develop national REDD+ strategies or efforts to reduce deforestation within the context of various sectors. Funding can also be made available for payment for ecosystem services schemes, the design of sustainable forest management projects or the development of forest carbon projects.

International private financing sources: Investment funds, companies and financial institutions, including banks and companies can finance REDD+. However, their investments require return. This can be achieved through the generation of Carbon Credits that can be sold for voluntary compensation. Climate investments in forest landscapes can generate additional returns, such as from green commodities. At the landscape level, also local populations can benefit from REDD+ actions, through a variety of additional income streams, through ecotourism, through increased access to markets, through the sales of

NTFPs and processing industries that add value to those products, and through agro-forestry products.

The production of voluntary REDD+ carbon credits continues to generate an important source of income for forest carbon projects. Apart from investors, individual companies can provide funding for the development of a REDD+ project that eventually produces verified credits

Challenges

Finding a niche in REDD+: some organizations are good at influencing policy, while others can take part in the actual development of projects. To develop a project, it is important to establish what the capacity needs are in terms of access to funds, financial sources needed to start and do feasibility study.

Scale of the project. Because of the costs involved, a REDD+ project will only be feasible if a minimum amount of land is available to develop the project.

Existing governance arrangement. Land ownership and access rights have to be clear before a REDD+ project can be conceived. i.e.: Do small holders have the necessary individual or collective rights or can these be devolved through by-laws or through special arrangements, such as government agreements for community based management committees?

Can systems be developed through which REDD+ benefits can be effectively and fairly be distributed among stakeholders and those groups that have to make changes in their practices?

Do local; regional and national agencies have the required technical capacity to monitor changes in forest carbon stock, set national or regional deforestation reference levels and to report accurately?

Final notes

While REDD+ is still being designed in the international UN platforms, NGOs and communities in REDD+ countries find opportunities to engage in REDD+ project development or in contributing to the building of sound governance that will help enable REDD+ implementation. Other organisations are well placed to influence national or international REDD+ policymaking. REDD+ is not a magic bullet for all challenges that organisations and communities face when trying to manage forest resources sustainably and when trying to protect those forest resources. REDD+ is not without risk. It can't be implemented if local stakeholders are not consulted meaningfully or if access to forest resources for local actors is poorly regulated. REDD+ readiness funds can make it possible for (consortiums of) organisations to tackle these problems. Organisations with experience

and capacity can in some cases already engage in the development of voluntary REDD+ projects.

References:

Luttrell (2012); Börner et.al. (2010); Pagiola and Bopsquet (2009)

On standards: <http://www.v-c-s.org/>

APPENDIX 1: KEY CONCEPTS of REDD+

Carbon market: A trading system through which countries and companies may sell and buy greenhouse-gas emissions reductions. Under the Kyoto Protocol or under other agreements, such as that the EU Emissions Trading System (EU ETS) countries can trade reduction units in order to meet their national targets. Gases other than carbon-dioxide are measured in units called "carbon-dioxide equivalents."

Carbon credit: tradable certified emission reduction (CER) expressed in tons of carbon dioxide equivalent (tCO₂e). To generate a carbon credit for REDD+, a project or country has to estimate the amount of greenhouse gas emissions reduced due to such activities. Under voluntary market, carbon credits are called voluntary or verified emission reductions (VER).

International public funding: funding provided by countries through their Official development assistance (ODA) or through multilateral arrangements such as the UN REDD Programme, or the Forest Carbon Partnership Facility (FCPF) of the World Bank. There are also regional international funds such as the Congo Basin Forest Fund (CBFF).

Regulatory or compliance carbon markets: carbon markets set up in the context of a legally binding agreement with binding obligations for countries or provinces to reduce emissions and that allow for the trading of carbon credits. Examples of current carbon emission trading systems are the clean development mechanism under the Kyoto Protocol of the UNFCCC, the state based emissions trading scheme in California and the European Union Emissions Trading System (EU ETS) or

Voluntary carbon markets: "voluntary carbon markets" refers to sale and purchase of carbon credits that are not immediately used to meet a compliance obligation. This includes transactions of credits created specifically for the voluntary markets (such as Verified Emission Reductions – VERs), as well as offsets or allowances created for the compliance market that buyers sought to voluntarily offset their emissions. It also includes transactions of voluntary credits in anticipation of future compliance obligations ("pre-compliance") (Peters-Stanley et al 2012). Another use for the voluntary carbon market is "Over – the – Counter (OTC)" which a non-binding offset market.

REFERENCE LIST

Please find below an overview of websites where more general information on sustainable finance can be found.

- <http://www.conservationfinance.org>
- http://awsassets.panda.org/downloads/wwf_guide_to_conservation_finance.pdf
- <http://app.iucn.org/dbtw-wpd/edocs/PAG-013.pdf>