Restoration of natural capital

A people-focused business scheme is providing communities with a financial incentive to protect the productivity of natural ecosystems. Degraded land is being restored and beneficiaries are experiencing real improvements in their food, water and income security.[1]

Bio-rights micro-credits support people and nature

Context and challenge

Mali's 30,000km^2 Inner Niger Delta is a densely populated area of floodplains, marshes and lakes where annual floods support a unique ecosystem. Over a million people, including several ethnic groups, are dependent on its rich biodiversity for some combination of agriculture, herding, fisheries, transport, sanitation, tourism and trade. The 38 flooded forests of the delta contain so much natural capital that they are known locally as 'banks'[2]. The pasture lands support an abundance of livestock, and the Niger's inner delta waterways produce up to 100,000 tonnes[3] of fish every year during high waters. Classified as a Ramsar site, the inner delta is also critical for a vast array of water-dependent plant and animal species, and provides a home for millions of resident and migratory water birds.

But human pressures on the 4,180km long Niger River are mounting, undermining the ability of West Africa's most essential lifeline to provide the wealth of ecosystem goods and services on which millions of people rely. Throughout its five-country journey, the Niger is regulated and dammed for irrigation and electricity generation, and the use of its water is intensifying due to fast-growing populations across its vast basin.

Climate change impacts, including more frequent severe droughts, are compounding the situation. Climate scenarios indicate less rain and higher temperatures in the Sahel in the future, which could reduce the flow of the Niger into the delta. This will have a huge impact on livelihoods as water supplies become unreliable, crop growing seasons shift and fish stocks decline.

Despite these growing risks, environmental concerns are rarely prioritised by development agencies and government authorities facing extreme poverty, health crises and conflicts. Daily life in the delta is focused on the never-ending challenge of securing adequate food, income and clean water, leaving little time or capacity to address environmental concerns.

Taking an ecosystem epproach

The ecosystem approach promotes the integrated management of land, water and living resources in a way that achieves mutually compatible conservation and sustainable use, and delivers equitable benefits for people and nature.[4] Recently, an Ecosystem Alliance project introduced a Bio-rights scheme, offering practical, business-like solutions and financial incentives to improve local livelihoods while sustaining the natural resource base.

Under Bio-rights, local community groups receive micro-credits to develop sources of income that have a positive net environmental impact. Without external assistance, these groups would not have access to credit because they are considered a poor risk and do not yet have the capacity to manage project finances. The Bio-rights partnership lowers this risk by providing micro-credit agencies with guarantee funds from Dutch investors. As well as receiving micro-credits, local communities are trained in credit management, business development and ecosystem restoration. In return, they commit to restoring their natural resource base and preserving biodiversity.

Micro-credits to women's groups have enabled investment in vegetable farming and goat and chicken raising. The women in turn agree to hunt fewer water birds and replant flooded forests and bourgou field pastures. Bourgou, a wetland grass, helps prevent erosion, is used to make hay for cattle, and during the floods provides important fish breeding habitats. Micro-credits have also allowed fishers to install solar panels to power freezers, which increases the market value of their catch while reducing the deforestation caused by the need for fuel wood. This renewable source of electricity is also available for other uses in the community.

The Bio-rights approach thus unites international investors with local communities and governments, local micro-credit agencies, and a range of local, civil society organisations.

Planting trees … to eat fish

Fatoumata Dienta looks proudly at the grove of young acacia trees that she and her friends have planted. Soon the flood will come, and the trees will disappear under the water to serve as a breeding ground for thousands of fish. Some will swim all the way down the Niger River, but many will end up in the nets of local fishers and on the dinner plates of families here in Akka village.

The trees were planted thanks to Bio-rights micro-credits. Instead of paying interest, Mrs Dienta's women's group planted acacia trees. When 75% of the trees were still intact after a year, the micro-credit became a grant. Many women's groups now use the grant as a revolving fund for the village.

BAKARY KONE

Acacia planting

Impacts on Communities, nature and policy

- Local incomes have been enhanced and food production has become easier.
- Ecosystem functioning and services have been fortified, with the benefits shared across the communities. Over 10,000 people in 34 communities in the Inner Niger Delta have higher incomes, and hundreds of hectares of floodplain have been restored.
- Bio-rights credits have been turned into self-sustaining revolving funds.
- With solid credit ratings, communities are now welcomed as direct customers – or even shareholders – of the micro-credit companies.
- The international investors and micro-credit agencies benefit from improved sustainability performance.
- Bio-rights credits are helping to overcome the trade-offs between conservation and development, and are thus increasingly positively perceived by governments and businesses.

Looking to the future

The demonstration projects in Mali were designed to start small, with approximately €1,000 to €5,000 in credit allocated to each group. This work is now being scaled up to involve some 200 women's groups and farmer and fishers' cooperatives involving around 2,000 people from 40 villages, with an investment of over €130,000.

Wetlands International has also launched Bio-rights projects in other regions. In Gambia and Guinea Bissau, 250 households have boosted incomes and nutrition levels as a result of community micro-credits for milling machines and water pumps for vegetable gardens, reforesting mangroves in return. The concept is further being introduced among 70 coastal communities in the Indonesian islands of Aceh, Flores and Java. Here, government has pledged funds in return for local participation in mangrove restoration and sustainable aquaculture. Through this expansion, more community groups are empowered to make their voices heard and take action to strengthen their food, water and income security.

But more investments are needed to secure bank guarantees for micro-credits like these and – at a fraction of the costs – provide technical guidance and support to communities in identifying solutions to pressing ecosystem-related challenges. Bio-rights micro-credits ensure that funds are directly available to the local people and civil society best placed to make a real difference on the ground. The Ecosystem Alliance is also investigating the potential to start offering this scheme as a compensation and offset opportunity for international companies seeking to reduce their biodiversity footprint.

Governments in the global north have a responsibility to help communities to build greater reserves of natural and human capital – the ideal foundation for sustainable development and human stability in regions hard-hit by climate change. Helping to facilitate micro-credits that enable local communities to protect at-risk ecosystem services is a highly effective way for governments to fulfil this global responsibility.

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Further reading

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