

Biodiversity and Livelihoods

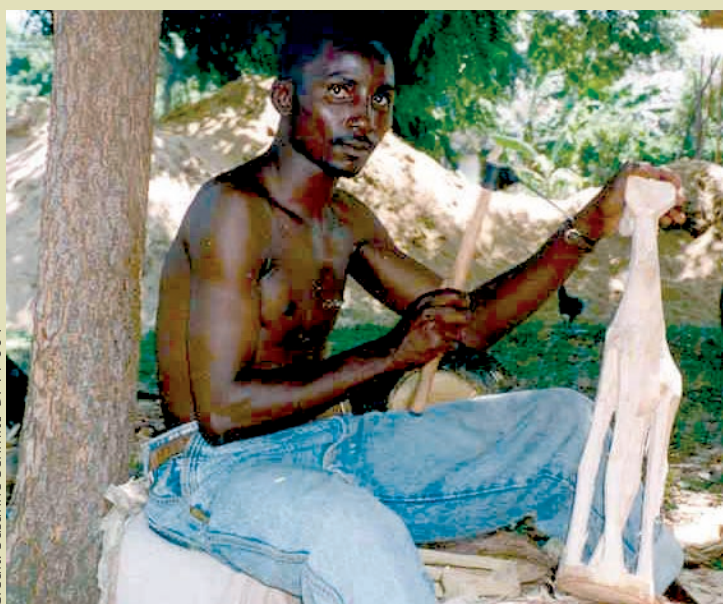
Achieving biodiversity conservation through Darwin Initiative projects: learning from experience

Recent approaches to conservation widely recognise that biodiversity protection in isolation from people's needs does not work – for conservation of wildlife and habitats, or for the people affected. It is often poor and vulnerable people who are most dependent on biodiversity resources as a basis for making a living. The Darwin Initiative (DI) recognises that local people must be central to designing and implementing any biodiversity conservation strategy, but that relationships between biodiversity and livelihoods are complex.

Working with local people to develop effective locally-based management strategies that successfully address conservation and have a positive impact on livelihoods is one of the difficulties DI projects face (see box 1). This note shares some DI achievements and lessons learned to help face these challenges.

Box 1. Key challenges to addressing these dual objectives are recognised by government and private sector agencies, development and conservation organisations alike:

- **Understanding** and addressing the complexity of socio-economic factors that underlie pressures on biodiversity resources, and recognising that these are often unique to each site and community
- **Finding** the right level of compromise: identifying solutions that are good both for the future of endangered species and diversity, and for poor and vulnerable people
- **Developing** appropriate and equitable incentives, capacity and livelihood alternatives to encourage and enable changes in behaviour with respect to resource use
- **Getting** effective and inclusive participation of stakeholders in defining and implementing sustainable use and management
- **Resolving** conflict and enabling constructive dialogue between local people and conservationists



The Akamba Handicraft Society are now producing certified crafts and carvings "Endeavour to provide conditions for compatibility between present uses and conservation of biological diversity" Article 8 Convention on Biological Diversity (1992)



What are livelihoods?

In broad terms a livelihood refers to the ways in which people make a living. According to Chambers and Conway (1991) a livelihood comprises “the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is environmentally sustainable when it maintains or enhances the local and global assets in which livelihoods depend, and has net beneficial effects on other livelihoods”.

All DI projects have to consider local people and, where relevant, the impact of the project on their livelihoods. The challenges noted above have to be addressed when designing and implementing projects that will achieve the most sustainable solutions for protecting ecological integrity and maintaining species diversity. In over ten years of support, DI projects have taken innovative approaches towards improving livelihoods through biodiversity conservation. Although the full impact of a Darwin Initiative project in implementing measures to promote and enhance sustainable livelihoods may often be assessed some years after project completion, to date significant achievements exist and important lessons have been learned.

Achievements

Securing local rights to resource management: A legal right to use and manage land is an important incentive in persuading local people that it is worthwhile for them to spend time and effort to manage resources for long-term benefit. Several DI



Supporting alternative livelihoods and reducing pressure on local resources through promoting planting of teak trees around the Paguyaman Reserve, Northern Sulawesi

Credit: Paul Van Gardingen/ Project Reviewer/ DI 09-012

projects have helped to develop local organisations and legislation or policies that strengthen local communities’ formal rights and responsibility for protection and management of natural resources.

A good example is the DI project to conserve the Paguyaman Reserve in Gorontalo Province, Northern Sulawesi, Indonesia (DI 09-012) managed by Imperial College London. It overcame problems of land clearance, illegal encroachment and conflicts between local communities and conservation groups by building local ownership of the reserve - helping to establish a local NGO (YANI) and to develop local legislation (PERDA) governing management of the Reserve. YANI have ensured that local needs were considered in the establishment of the 52’000 ha Nantu-Boliyohuto Conservation Forest through public-education campaigns, developing income-

Reducing pressure on wild resources:

Biodiversity resources are often valued for a wide range of benefits – including food, medicine, craft and building material, and cultural uses. Increasingly, many resources are threatened by over-harvesting for growing populations and loss of habitat to farming and development. Some DI projects have reduced pressure on key wild resources through developing and transferring knowledge of domestication, and linking demand with sustainable resource supplies.

A DI project in Ghana, managed by UNEP World Conservation Monitoring Centre, is a useful example. The project (DI 08-048) was established in 1999 to conserve and promote sustainable use of key medicinal plants, valued for their cultural,

economic and health benefits, and a declining resource in Ghana. The project worked with village leaders, local healers and birth attendants to develop a better knowledge of plant use, growth and conservation. As well as species distribution lists and a database of traditional medicinal resources, the project helped to establish an important education and training resource through the demonstration garden for medicinal plants and trained staff at the Aburi Botanic Gardens. Although the project ended in 2002, these “First Aid Gardens” continue to provide propagation material for local people to grow in small-scale gardens in school grounds, home gardens and sacred forests, and provide a basis for educating school children, healers and users about propagation and cultivation of medicinal plants.

generating activities, conducting training courses and helping to develop and ratify the PERDA legislation. Local communities were consulted in the development of the PERDA through two public meetings facilitated by the project and a seminar hosted by local government with whom the project worked in close partnership. The PERDA gives local communities, through a representative management authority, responsibility to manage the Reserve.

Developing locally-based management strategies:

Local people who depend upon biological resources for their livelihoods as well as for their associated ecological benefits – for example in its contribution to a reliable supply of clean water – are key to any future management. As well as having valuable knowledge about threats to the ecosystem and traditionally low impact use patterns, locals are often the people who are expected to respect and implement any conservation measures. Increasingly DI projects are developing management strategies together with local communities, resulting in measures that are more likely to be endorsed and adopted by local people, and in reduced conflict between resource users and conservationists.

For example in the San Andres Archipelago, Colombia, a DI project (DI 11-015), managed by Heriot-Watt University, has been working together with local crab-catchers to determine how to conserve the culturally, nutritionally and economically valuable black land crab (*Gecarcinus ruricola*). The black land crab populations are under threat from overexploitation due to increased demand and catcher numbers, habitat degradation resulting from changing agricultural and tourist-related development, and increased road-kill. Local communities were involved throughout the project: during research, through education, supporting the analysis, and in development of management options. As a result the project, which finishes in April 2005, has developed a range of management recommendations that are strongly supported both by local communities and the Environment Agency. Recommendations include: the formation of catcher co-operatives to enable concerted management efforts and support; the establishment of a legal body representing all major stakeholders to guide management decisions; continued voluntary monitoring of catcher numbers, stock and effort; and maintenance and extension of the closed season during the migration period.



Credit: Coralina/DI 11-015

A survey carried out in 1999 showed that islanders in the San Andres Archipelago considered the black land crab one of their most important marine resources – now threatened due to a range of causes including increased road traffic

“Key to the process was maintaining an open mind about local views and the possibility of adopting new options”

Mark Baine, DI Project Leader

Introducing alternative livelihoods: Livelihoods often depend upon habitats that are also home to rare and endangered species. Conservation strategies therefore have to consider how people can sustain their livelihoods without further endangering these species and habitats. One approach often used in DI projects is development of alternative sources of livelihoods, such as tree nurseries, ecotourism ventures or sustainable market and production chains. Several DI projects have worked to develop and improve access to alternative livelihoods that also reduce pressure on threatened wild resources



Credit: Matt Walpole/DI 10-003

A conservation project has improved local livelihoods through ecotourism providing direct employment of community scouts, improved food security by reducing elephant crop raiding, and improved local capacity to manage and benefit from conservation.



Experts in business development and marketing were drawn in to help carving co-operatives develop high quality certified products

For example a DI project managed by DICE (University of Kent) aiming to build local capacity for management of recovering black rhino populations in Namibia (DI 11-005) – has sought to improve livelihoods through conservation ecotourism. The project has built on the achievements of a Namibian NGO Save the Rhino Trust (SRT) in significantly increasing the black rhino population through a management system based on community game guards. The project has helped to broker a partnership between SRT and a well-established ecotourism operator, Wilderness Safaris, to develop a rhino-tracking ecotourism venture drawing on the expertise of SRT's community game guards. This provides SRT with a sustainable source of income to pay community game guard salaries, thus providing them with continued incentive to conserve rhinos. This form of ecotourism may soon be extended to the first conservancy, where the venture would provide wider community benefits via Namibia's novel community-based conservation programme.

Another DICE project (DI 10-003) aimed at reducing conflict between people and wildlife in the Mara Ecosystem in Kenya has also trained community scouts in monitoring of wildlife, poaching and human-wildlife conflict. Local involvement has helped to improve food security through developing local protection schemes against elephant crop raiding and livestock predation. The project has also helped to preserve helped to preserve traditional culture through providing a "modern rationale" for preserving Maasai skills and lifestyles.

Working through strategic partnerships: Addressing livelihoods adds further complexity to conservation projects – often requiring expert knowledge of

community development, market dynamics and an in-depth appreciation of the socio-political context in order to have a real and lasting impact. As well as bringing on board individuals with required knowledge, the expertise and influence of the project can be extended by developing strategic partnerships with organisations with the key skills and experience lacking in the conservation organisation managing the project. DI projects have developed a number of exciting and innovative partnerships – and increasingly draw on growing expertise of national NGOs and business.

One DI project (DI 11-004) run by WWF-UK has been working to conserve Kenya's forests through linking the substantial production and trade of woodcarvings to certified sustainably managed sources of timber. The project had a solid understanding of the socio-economic context for the project, and the ecological factors affecting the decline of native hardwoods and the potential for neem (*Azadirachta indica*) in the carving industry – but they quickly recognised that they lacked some key skills. During early implementation the project therefore established several new strong partnerships in order to ensure that their existing partners (the Akamba and Malindi Handicraft Cooperatives) were receiving the best expertise in business development and marketing of certified, high quality, sustainably sourced woodcarvings – and that the opportunity was effectively extended to as many people as possible.

These new partners include Oxfam-GB's Market Access Team, Oxfam-Kenya's Sustainable Livelihoods Team, the Kwetu training centre and the Kenya Gatsby Trust. These successful partnerships led to the successful awarding of an FSC chain of custody certificate for neem wood used for woodcarving to the Akamba Handicraft Society (3000 carvers) and the Coast Tree Product (CTP) company, a new marketing company founded by the project. The crafts are already in demand from a major importer of African crafts and carvings (BESMO) who sells through retailers such as Debenhams and the House of Fraser. Carvers now have a reliable source of wood (i.e. neem 'Good Wood' instead of dwindling supplies of hardwood) and the capacity to carve, treat and market these products. Farmers who supply certified neem have a new source of income, and have been able to gain better prices for their neem logs through the newly founded Coastal Farm Forestry Association.

Lessons from experience

With the increasing focus on livelihoods in DI projects over recent years, a wealth of experience is emerging. Project leaders and reviewers have identified some key lesson areas in their approaches to the various challenges and opportunities this presents:

Working with communities takes time

It is well known that working with communities requires additional time and resources compared to a more isolationist conservation approach. Yet some projects continue to underestimate the time required – and struggle to make an impact on livelihoods within the three year timeframe of most Darwin projects. Projects need to build in the time for consultation, building trust, training, researching (and trying out) livelihood options and public awareness activities. This is best achieved through carrying out a proper inception study, planning together with the community – and around their activities – and drawing on previous experience to develop realistic timeframes. Projects which have engaged with communities prior to designing the project – and confirmed their desire and need to be involved – have removed one of the critical and time consuming assumptions of many projects seeking to work with communities. This has

been achieved through making pre-project visits, building on existing projects where stakeholders are well understood, and by working closely with local partners who can effectively and accurately represent local communities.

Box 2. Advice for gaining time

- Build on existing relationships – plan projects where previous interventions have taken place or with existing partners with whom you have a good track record
- Be realistic about what can be achieved – incorporate time for involving communities into the design of the project – be realistic about the stages involved
- Share responsibility – delegate responsibility to local experts in community participation and who have long-term commitment locally. This also requires good coordination skills in the UK
- Listen and be open – declare partnerships and objectives – listen to local concerns and take them seriously
- Plan ahead – ensure project provides a sound basis for continuity; and plan to look for funding to extend positive lasting impact on livelihoods

“Working with communities, and moving into livelihoods from our core business of conservation does slow things down in the short term...Actually establishing alternative livelihoods for the longer term is extremely difficult and time consuming...Allow sufficient time for communities to develop capacity and for partnerships to grow and mature, build the project around committed local counterparts...but most importantly listen to what communities themselves want to achieve.”

Matt Walpole, DI Project Leader

Enable participation of local communities throughout the project

One challenge some DI projects have had is in involving people in the project – in achieving real participation. Projects tend to achieve more success if they are open and clear about the project’s aims, objectives and conflicts, try to involve communities in all activities – maintaining momentum, and seek to develop clear benefits based on an understanding of local needs – from the beginning and throughout the life of the Darwin project.

By involving individuals who are keen to participate and are able to represent communities in all types of activities – in planning, monitoring and analysis as



H'mong villagers involved in community based conservation of Hoang Lien Mountain Ecosystem, Vietnam

well as practical activities – local understanding for the project has increased and more relevant linkages to the local context have been developed. For example, the DICE project to integrate conservation and tourism centred around axolotls in Mexico (DI 11-018) encouraged participation (and reduced suspicion) in training workshops for boatmen by recruiting former ‘graduates’ of the course to deliver new training. Involvement means asking for and listening to local opinions, providing feedback, and developing and exploring management options together with community representatives - encouraging inclusion of all sectors of the community. Participation can then take place on a more equitable basis and decisions are more likely to be defended and managed by local people in the future. Openness is also important in overcoming suspicion which might discourage participation. Local people living around the Paguyaman Reserve only accepted teak seedlings offered as part of a scheme to improve livelihoods after they were presented during a public ceremony presided over by local officials. Communities should also be encouraged and enabled to take initiative for implementing new ideas or activities such as alternative livelihoods. Achieving participation requires good facilitation skills.

Develop appropriate benefits and incentives

Benefits - incentives to get involved - should be based upon a clear understanding of the socio-economic as well as the ecological context. This may range from knowing how people use a resource to understanding the market dynamics of a non-timber forest product. It also includes understanding



Credit: Jeremy Holden/FFI/DI 10-011

An in-depth study of the complex social, economic and governance context was carried out. This has provided a basis for obtaining funding from the EU for a longer term carefully designed community-based conservation intervention.

the policy context – and the opportunities and limitations this poses for the project. Some projects have experienced delays when the project has taken time to adapt - when changes in policies affect involvement of local people in resource management. Incentives are unlikely to be successful if they have not been identified as priorities by the people they are intended for. Benefits and conditions associated with them should be made clear to local communities and should be widely accessible to all in the target group. A common observation of DI project leaders was that incentives related to improving livelihoods “is not just about money” but about also about wellbeing and sustainability – and projects should seek to address both long- and short-term benefits.

The Darwin Initiative is a small grants programme that aims to promote biodiversity conservation and sustainable use of resources around the world. It uses UK expertise working with local partners to help countries rich in biodiversity but poor in resources to fulfil their commitments under the CBD.

The Initiative is funded and administered by the UK Department for Environment, Food and Rural Affairs, (Defra). Since 1992, the DI has committed over £45m to 400 projects in over 100 countries.

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For information on the Darwin Initiative see www.darwin.gov.uk

For information on the CBD see www.biodiv.org

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