

Making the Most of Protected Areas

Achieving biodiversity conservation through Darwin Initiative projects: learning from experience

Protected areas (PAs) are recognised as a key element in the implementation of the Convention on Biological Diversity (CBD). Today, protected areas cover around 11.5% of the earth's land surface (though only 1% of the marine area). However, conservationists argue that protected area systems remain incomplete and face significant challenges for effective management (see box 1). Against this picture, this note highlights positive impacts achieved and emerging experiences of Darwin Initiative (DI) projects that have supported PAs, and draws out some lessons to improve the impact of projects in the future.



Box 1. Both the World Parks Congress (2003) and the CBD's COP7 Programme of Work (2004) recognised the following key challenges for protected area management:

- **Need for more PAs:** PA systems do not represent all ecosystems, or address critical habitat/species.
- **Integrated planning:** Ecosystems approach and integration of PA management with wider (land-use, sectoral and sustainable development) policy and planning is needed for viable PA systems.
- **Effective participation:** More equitable sharing of the costs and benefits associated with protected areas is needed, and local people's rights need to be recognised and guaranteed
- **Strengthening the capacity** of staff and institutions engaged in PA management is essential, especially in less developed countries.
- **Communication and education** (to users, the public and policy-makers) on the role and benefits of PAs needs to be improved.

The CBD defines protected areas as "a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives."

Achievements

In over twelve years of support, DI projects have made significant achievements in biodiversity conservation. Protected areas projects contribute directly to Article 8 of the CBD (on in-situ conservation of biological diversity) and to addressing the key challenges defined above.

- Expanding protected areas systems globally: DI projects are contributing to secure existing PA systems and to support establishment of new ones – an important CBD target. Often, other support is not available and PAs might therefore be inadequately resourced or not exist at all.
- Increasing awareness and participation: It is widely recognised that natural resource management requires the involvement of local people for long-term success. A number of DI projects have had success in raising awareness amongst PA stakeholders of the need for conservation and in developing incentives for stakeholders to participate in conservation activities. Where local people are well-informed about the potential benefits and where policies, rights and responsibilities are made clear, getting them to prioritise and commit to project activities has been more successful.
- Improving knowledge for management: Many DI projects have focused on collecting and analysing data to generate knowledge to inform management of PAs – use of good science is a key strength of DI projects. New methodologies (e.g. for data collection and management) have been developed, and field-work has prompted numerous Guides, Manuals, Status Reports, and Checklists. A number of DI projects have successfully focused on endangered and “flagship” species as indicators of the need for



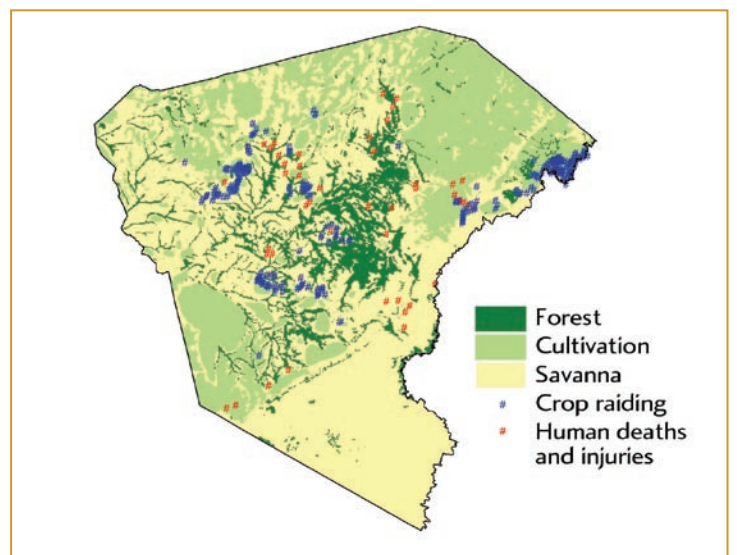
DI projects have focused on a wide range of species: including orangutan in Sabah, penguins in Chile; and here PA staff are being trained by their colleagues to monitor rhino in Kenya.

action in PAs. For example, a DI project in Kenya is building capacity for monitoring critically endangered black rhinos as part of a wider conservation strategy. The scientific content and outputs of DI projects are top quality and often highly sought-after by host-country institutions (not just those involved in the project) as valuable reference material for training, monitoring and management.

- Capacity building - Some form of training or less direct capacity-building is typically a part of every DI project. For example in Tanzania, GPS-recording and database use has made local rangers more effective. Consequently PAs have benefited from a cadre of PA staff better trained in ecological survey and management skills. Some staff have also been trained in socio-economic assessment, education and awareness, and participatory methodologies – often their first exposure to the “people-side” of conservation.



“Experience shows that a well-designed and managed system of protected areas can form the pinnacle of a nation’s efforts to protect biological diversity.” (CBD)



Many DI projects have developed and enhanced information systems to provide mapping facilities to improve conservation management.

Case study: Masai Mara National Reserve (MMNR)

Background

- 1510 sq km of Serengeti-Mara ecosystem supporting high diversity and biomass of large mammals, with 150,000 visitors per year, raising \$5-10 million in entrance fees for the two district councils who are the Reserve's management authorities.
- DI funded projects to improve the effectiveness of Reserve management have been implemented by DICE (Durrell Institute of Conservation and Ecology, University of Kent).

Problems

- Disturbance and encroachment in the Reserve (e.g. from unregulated tourism and cattle grazing); severe impacts on wildlife populations (especially big cats and black rhinos); conflict outside the reserve (e.g. due to crop losses to elephants and local people not seeing any benefits from the Reserve); limited integration with other organisations or involvement of local people in Reserve management.

Project Solution

- Wider participation in the investigation of management problems and development of recommendations - based on the needs of the wider local stakeholders and ecosystem, not just the Reserve authorities, and involving private sector enterprises.
- A programme of capacity building involving local people - developing community scouts and local ecotourism ventures to help mitigate conflicts outside the Reserve.
- Research looked at options for partnerships (e.g. with private sector or local communities to make regulation inside the Reserve more effective) and benefit sharing (to address the real local concerns).



Credit: Matt Waipole/DICE

Key outcomes

- Local communities wanted change and are now more empowered to get involved in wildlife monitoring and conflict mitigation. They have more of a stake in conservation and tourism through being more involved in these activities. As a result, some approaches to share some of the benefits have been developed and the communities are moving to better ecosystem stewardship. But some key challenges are ongoing: benefit sharing with the communities remains limited; and any shift towards integration of management inside and outside the Reserve is slow.

Reflections

- A participatory management planning process is one thing, putting it into action is another. For instance, progress will be hampered if the authorities mandated to manage the PA cannot implement the recommendations due to institutional problems, and remain unwilling to change the status quo. Bringing in partners can help (e.g. private sector to improve revenue collection, communities to get involved in monitoring) but finding solutions to address underlying institutional issues is also critical to long-term success.

For further details see:
www.mosaic-conservation.org/mara/mmnr

Lessons from experience

Experience and reflection so far have proved that the DI is performing a uniquely useful role in improving the contribution of protected areas to safeguarding biodiversity where efforts are most needed. Learning from common challenges is allowing DI projects to improve their future impacts, success and sustainability. Some projects have found innovative ways of dealing with these challenge areas.



Credit: Paul van Gardingen

“Active participation of local stakeholders in the Paguyaman forest project in Sulawesi has been recognised as necessary to ensure the sustainability of this Reserve and get real application of the good science. A strong sense of local ownership of the project and its achievements is now being promoted”. (Project reviewer)

People and participation

DI projects are exceptional at promoting species and habitat conservation improvements. An important challenge is to ensure local people are included in the benefits (e.g. retaining access to resources, or better distribution of revenues from PA entrance fees).

Many DI projects include ‘participation’ and consider ‘livelihoods’, piloting innovative approaches to conservation and improving the benefit of the scientific inputs, and have had positive impacts in this area. Examples include local enterprise partnerships, benefit-sharing (between PA management and local populations), and drawing up community constitutions. Challenges remain to ensure the mainstreaming of “people” and their needs, for a “win-win” outcome wherever possible.

Key lesson: Local people cannot be separated from protected area management. Be innovative in how you promote local support, partnerships, and share benefits.

Getting the right expertise

DI projects use robust and appropriate science to achieve conservation biology outcomes. Delivery of management plans can still be challenging, as time and inputs needed can be under-estimated. The most successful projects use people with skills in participatory multi-stakeholder planning processes, for effectiveness and sustainability.



Credit: Matt Waipole/DICE

In the MMNR, a DI project brought in a private tourism enterprise to manage a portion of the Reserve, and revenues rapidly increased – generating more income for local communities, for investment in better management and in building capacity of both Reserve staff and local wildlife scouts.

This highlights that protected area management increasingly needs a broader range of skills and experience – such as social science, conflict resolution, institutional development, business management, public policy – to deliver the wider goals. Where multi-disciplinary and multi-institutional teams (including private sector where appropriate) have been used, the application of the science has been improved.

Key lesson: The right mix of expertise should be partnered for the job. There are a lot of people with appropriate skills and experience who have already learned the lessons.

Building capacity in the right places

DI projects have made significant contributions to building capacity for better PA management. However, capacity remains a constraining factor for long-term sustainability of PA management, often linked to staff turnover.

Promoting the capacity of local people to manage and co-manage biodiversity themselves (rather than just training PA staff and “adding on” occasional community workshops) can make a major difference to the long-term success of inputs and promoting local ownership. For example in Kenya, wildlife management was greatly strengthened by sending a local teacher, rather than PA staff, to do an MSc in the UK. Building conservation capacity might be best done through working with and strengthening a range of complementary local and community institutions, rather than expecting one institution to do it all.

Key lesson: It is important to ensure that the right institutions have the right capacity, matched to their roles and responsibilities, and that they know how to pass on as needed.

Using knowledge to manage, integrate and influence

DI projects are typically excellent at collecting biodiversity knowledge, but using it to have influences beyond the boundaries of the PA can be more challenging. PA managers struggle to utilise the knowledge if they are not clearly supported or empowered. Knowledge needs to be more accessible and better used to optimise management,

inform decision-makers, and to understand the socio-economic impacts and benefits associated with PAs. At the national level knowledge can be used to:

- Ensure that management of the PA is integrated into wider land-use planning and policy development. The long-term success of any PA is dependent on what happens beyond its boundaries, as it is only a small part of the wider ecosystem.
- Support action on PA management activities by clarifying the mandate and responsibilities of managers.
- Help local people to see how the PA complements other local land-uses and can benefit them, thus reducing conflict and motivating co-operation.
- Help secure continued financial support to PA management, by demonstrating how conservation contributes to national and international development targets.

Key lesson: Scientific knowledge is not only good for science – make the knowledge useful for influencing wider support for conservation objectives.

The COP7 program of work confirms that efforts on PAs should also contribute to achieving sustainable development and the Millennium Development Goals – bringing poverty reduction higher up the conservationist’s agenda.



Summing Up

Darwin Initiative projects are making significant improvements to Protected Area management globally.

They are supporting expansion of protected area, improved participation, and better knowledge and capacity for conservation. Key lessons for further success include those relating to mainstreaming "people" into PA management, using appropriate and "out of the box" expertise, getting capacity into local institutions, and making knowledge useful to win future support for conservation activities.

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.

This note was produced by the Edinburgh Centre for Tropical Forests (ECTF) www.nmw.ac.uk/ectf

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

For information on the CBD see www.biodiv.org

Defra Darwin Initiative Secretariat
Defra, Floor 4/C2,
Ashdown House,
123 Victoria Street,
London, SW1E 6DE
Tel. +44 (0) 207 082 8430
Fax. +44 (0) 207 082 8436
Email darwin@defra.gsi.gov.uk

