

**INTEGRATING CONSERVATION AND  
DEVELOPMENT EXPERIENCE:**

**A REVIEW AND BIBLIOGRAPHY  
OF THE ICDP LITERATURE**

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## ACRONYMS

BCN	Biodiversity Conservation Network
DFID	Department for International Development
CBNRM	Community-based Natural Resource Management
CWM	Community Wildlife Management
ICDP	Integrated Conservation and Development Project
IIED	International Institute for Environment and Development
IUCN	The World Conservation Union
M&E	Monitoring and Evaluation
PA	Protected Area
WWF	World Wide Fund for Nature

## 1.0 INTRODUCTION

This literature review aims to investigate local perceptions of the success or failure of Integrated Conservation and Development Projects (ICDPs). It reviews existing information on ICDPs to take stock of experience to date and to explore the key problems and lessons learned. The document begins a process of drawing together information on ICDP policy and practice. It also aims to steer planners, policy makers and practitioners through the existing literature.

The information presented highlights key points emerging from a desk review of published and 'grey' literature relating to ICDP policy and practice. The bibliography does not aim to be comprehensive but rather indicative of the literature that is currently available. In the course of the review, distinguishing between literature of direct and indirect relevance to the policy and practice of ICDPs often proved difficult. In part, this is because there is no universally accepted definition, which specifies what an ICDP is, and what an ICDP is not. The literature selected for this review focuses as far as possible on issues related specifically to ICDP policy and practice. However, some more general literature is included, but only where we believe the contents provide useful insights of direct relevance to the overall purpose of the review.

The bibliography (p. 13) is divided into two sections, as follows:

- **Case studies: ICDPs in Practice:** including information on where practitioners can find examples and case studies of ICDPs in practice; and is further subdivided into general examples and then examples from Africa, Asia-Pacific, Latin and Central America and the Caribbean.
- **Practical guidance for design, stakeholder involvement, monitoring and evaluation:** including material aimed at providing practical guidance for all those involved with ICDPs.

### 1.1 WHAT ARE ICDPS?

A notable feature of the ICDP literature is the extent to which the 'working definition' of an ICDP has changed. This is partly because of changes in development thinking and experience world-wide, and largely because decentralised resource management approaches (e.g., community wildlife management approaches in southern Africa) have started to show some positive results in achieving their objectives – in terms of both local development and biodiversity. However, despite changing definitions, the assumptions upon which ICDPs are based remain basically the same.

Most practitioners would agree that ICDPs are biodiversity conservation projects with rural development components. Recently, one prominent author has defined the ICDP approach even more broadly as:

*"...an approach that aims to meet social development priorities and conservation goals<sup>1</sup>".*

This latter definition would indicate an almost complete convergence with sustainable development thinking, which seeks to address sustainable rural development in general, for example, through integrated rural development projects or more recently, through sustainable livelihoods approaches. It would seem that ICDPs are beginning to lose their distinct identity, becoming gradually more indistinguishable from broader sustainable (rural) development approaches. All that would appear to distinguish them from other types of sustainable rural development projects is the fact that they are located near protected areas.

A characteristic of ICDP projects is that they seek to address biodiversity conservation objectives through the use of socio-economic investment tools<sup>2</sup>. They were first introduced in the mid-1980s by the World Wide Fund for Nature (WWF) in an attempt to address some of the shortcomings of, and problems associated with, 'fines and fences' approaches to conservation in protected areas. At the time, they were viewed as a 'radical divergence' from 'preservationist' approaches to protected area management<sup>3</sup>.

1 Worah, S. (2000) *International History of ICDPs*. In: UNDP (2000) *Proceedings of Integrated Conservation and Development Projects Lessons Learned Workshop*, June 12-13, 2000. Hanoi: UNDP/World Bank/WWF.

2 Sanjayan, M.A., Shen, S. and Jansen, M. (1997) *Experiences with Integrated-Conservation Development Projects in Asia*. World Bank Technical Paper No 38. Washington DC.

3 Larson, P.S., Freudenberg, M. and Wyckoff-Baird, B. (1998) *WWF Integrated Conservation and Development Projects: Ten Lessons from the Field 1985-1996*. Washington DC.

## 1.2 ICDPS WORLD-WIDE

In 1985, WWF launched its Wildlands and Human Needs Program<sup>4</sup>, which initially incorporated a portfolio of approximately twenty ICDPs. These “*Sought to improve the quality of life of rural people through practical field projects that integrated the management of natural resources with grass-roots economic development*”<sup>5</sup>. By 1994, WWF was supporting more than fifty ICDPs. Roughly fifteen of these projects were continuations of the first-generation ICDPs developed in the mid-1980s. The remainder of the projects date from 1990 or later.

Today there are thought to be over three-hundred ICDPs world-wide. These projects absorb a major proportion of international conservation funding. Indonesia illustrates the scale of donor support for ICDPs, where the national protected areas network is supported by donor funds allocated through various ICDP programmes. Indonesia’s ICDP network has been supplemented by US\$130 million of international donor funds<sup>6</sup>, and bilateral support of US\$20 million has been made available to the Biodiversity Conservation Network (BCN) for twenty ICDPs, several of which are also being implemented in Indonesia.

## 1.3 COMMON FEATURES OF ICDPS

ICDPs are as varied as they are numerous. All ICDPs incorporate components that aim to provide benefits to local communities through a variety of activities (Box 1). They exist under a variety of names, such as “*People-Centred Conservation and Development*” and “*Eco-development*”<sup>7</sup>. Some agencies and authors include projects that have more commonly been termed community-based natural resource management (CBNRM) or community wildlife management (CWM)<sup>8</sup> programmes, such as for example, CAMPFIRE<sup>9</sup> in Zimbabwe and ADMAD<sup>10</sup> in Zambia<sup>11</sup>. These latter kinds of projects have been called “*Second Generation ICDPs*”<sup>12</sup>. There has also been a recent trend to move away from ICDP projects based on inflexible and rigid management plans, towards approaches which place more emphasis on ‘learning whilst doing’ and ‘adaptive management’.

### Box 1 : Common features of ICDPs

Despite the diversity of terminology and variation in the scope of activities perceived to comprise ICDPs, they have a number of common features:

- Biodiversity conservation is the primary goal;
- There is a recognised need to address the social and economic requirements of communities who might otherwise threaten biodiversity, and the natural resource base in general;
- The core objective is to improve relationships between state-managed protected areas and their neighbours;
- ICDPs do not necessarily seek to devolve control or ownership of protected area resources to local communities nor to address this issue on the periphery of the parks;
- ICDPs usually receive funding from external sources, i.e., from bilateral or multilateral donors, and international conservation organisations. Without some form of external financial assistance government wildlife (or other conservation-related) department budgets can rarely afford to implement these projects;
- The majority of ICDPs are externally motivated and are initiated by conservation organisations and/or development agencies (even if implemented by governmental bodies);
- They are generally linked to a protected area, more often than not, a national park.

## 1.4 UNDERLYING ASSUMPTIONS

Three assumptions underpin the objectives of all ICDPs today<sup>13</sup>. These are:

- Diversified local livelihood options will reduce human pressure on biodiversity, leading to its improved conservation;
- Local people and their livelihood practices, rather than ‘external factors’, comprise the most important threat to the biodiversity resources of the area in question;

4 See McShane, T. (1989) Wildlands and Human Needs: Resources Use in an African Protected Area. *Landscape and Urban Planning*, 19: 145-158.

5 Larson, P.S., Freudenberger, M. and Wyckoff-Baird, B. (1998) *WWF Integrated Conservation and Development Projects: Ten Lessons from the Field 1985-1996*. Washington DC.

6 Davies, R., Madikwe Development Task Team, Hofmeyr, M., Trieloff, C. and Wells, M. (1997) *Madikwe Development Series: Number 1 to 5*. South Africa: North West Parks Board.

7 The acronym ICAD is commonly used in Asia.

8 IIED (1994) *Whose Eden? An Overview of Community Approaches to Wildlife Management*. London: International Institute for Environment and Development.

9 Communal Areas Management Programme For Indigenous Resources.

10 Administrative Management Design Programme for Game Management Areas.

11 For examples, see  
a. Barrett, C.B. and Arcese, P. (1995) Are Integrated Conservation Development Projects (ICDPs) Sustainable? On the Conservation of Large Mammals in Sub-Saharan Africa. *World Development*, 23 (7).  
b. Larson, P.S., Freudenberger, M. and Wyckoff-Baird, B. (1998) *WWF Integrated Conservation and Development Projects: Ten Lessons from the Field 1985-1996*. Washington DC.

c. IIED (1994) *Whose Eden? An Overview of Community Approaches to Wildlife Management*. London: IIED.

12 Larson, P. S., Freudenberger, M. and Wyckoff-Baird, B. (1998) *WWF Integrated Conservation and Development Projects: Ten Lessons from the Field 1985-1996*. Washington DC.

13 For examples, see:  
a. Sanjayan, M.A., Shen, S. and Jansen, M. (1997) *Experiences with Integrated-Conservation Development Projects in Asia*. World Bank Technical Paper No 38. Washington DC.

b. Larson, P.S., Freudenberger, M. and Wyckoff-Baird, B. (1998) *WWF Integrated Conservation and Development Projects: Ten Lessons from the Field 1985-1996*. Washington DC.

c. Biodiversity Conservation Network (1995) *The Biodiversity Support Program's Biodiversity Conservation Network: 1995 Annual Report*. Washington DC.

d. CARE (1998) *CARE's Environmental Program*.  
<http://www.care.org/devrecenter/consrv.html#protect>.

e. Food and Agriculture Organisation (1997) *Wildlife and Protected Area Management. A Compendium of FAO Implemented Projects and Related Bibliography, 1975-1996*. Rome: FAO.

f. Environment and Natural Resources Information Center (1994) *Biodiversity Conservation and Sustainable Use: USAID Project Profiles*. Arlington VA.

g. World Bank (1996) *Staff Appraisal Report: India Ecodevelopment Project. South Asia Department II, Washington DC or Environment 1 Project (EPI) in Madagascar (1991-1995)*. Internet: <http://www.world-bank.org/afdr/findings/infobeng/infob6e.htm>.

- ICDPs offer sustainable alternatives to traditional protectionist approaches to protected area management.

Table 1 expands further on the assumptions mentioned above. It attempts to incorporate the ‘evolution’ in ‘practitioner thinking’ on ICDP assumptions. This ‘evolution’ suggests a progressive devolution of power, from approaches that seek to ‘deliver’ alternative development options, to approaches that respond to broader issues of resource tenure and participatory planning.

14 Adapted from Worah, S. (2000) *International History of ICDPs*. In: UNDP (2000) *Proceedings of Integrated Conservation and Development Projects Lessons Learned Workshop*, June 12-13, 2000. Hanoi: UNDP/World Bank/WWF.

**Table 1: Assumptions, activities and ‘lessons learned’ from evolving ICDP models<sup>14</sup>**

<i>Overall Assumption</i>	<i>Typical Activities</i>	<i>Lessons</i>
Unless the basic needs of people living in and around biodiversity-rich areas are met, they will not support (or will be hostile to) conservation efforts	‘Social development’ activities such as building of roads, water supply, schools, health centres, and sharing a small proportion of park entrance fees etc	<ul style="list-style-type: none"> <li>• Passive beneficiaries</li> <li>• Input intensive</li> <li>• Conservation links unclear or non-existent</li> </ul>
Impacts of local communities on biodiversity can be mitigated by providing them with alternatives to natural resource-dependent livelihoods	‘Alternative livelihood’ developments, such as agroforestry, weaving, bee-keeping, mushroom and vegetable farming, etc	<ul style="list-style-type: none"> <li>• Conservation – development links not clearly addressed</li> <li>• De-linking livelihoods from natural resources weakens interest in them</li> <li>• Failure of new interventions due to inexperience</li> </ul>
Local communities will use natural resources ‘wisely’ if the ‘link’ between conservation of their resources and their livelihoods is ‘clear’	‘Value adding’ to natural resources harvested sustainably such as forest bee-keeping, NTFP collection and marketing and ecotourism etc	<ul style="list-style-type: none"> <li>• Wider policy/legal/market constraints (access/tenure) not addressed</li> <li>• Inadequate information on biodiversity impacts</li> <li>• Benefit-sharing mechanisms complex to implement</li> <li>• Inadequate attention to equity issues</li> <li>• Internal conflicts</li> </ul>
Communities will act to conserve resources if they have a ‘stake’ in decision-making about use and management of the resources	Access and benefit sharing, multiple use zones, participatory planning and management (usually limited to specific areas/resources)	<ul style="list-style-type: none"> <li>• Policy/legal constraints (access/tenure) not addressed</li> <li>• Weak processes/limited experience</li> <li>• External forces/threats not addressed</li> <li>• ‘Stake’ too limited to be of interest</li> </ul>

## 2.0 KEY THEMES

Drawing themes from the literature reviewed proved very difficult because of complexities associated with delineating what an ICDP is and what it is not (see above) and a general paucity of objective evaluations of ICDP practice. Although there is now an extensive ICDP literature base, this tends to be more philosophical and prescriptive, rather than analytical and evaluative.

### 2.1 DO ICDPS WORK?

A notable feature of the literature reviewed, and from recent 'lessons learnt' studies<sup>15</sup>, and workshops<sup>16</sup> is the lack of documented examples of ICDP success. Most studies point to ICDP 'failures' rather than 'successes'. As one study<sup>17</sup> concluded:

*“Establishing ICDPs that actually work has proven to be rather more challenging than marketing the concept and raising the funds...[and] nearly a decade after first popularised, there is still a notable lack of successful and convincing cases where people’s development needs have been effectively reconciled with protected area management”.*

This rather pessimistic outlook is not, however, a universal feature of the analytical ICDP literature reviewed, and it would seem that there are grounds for optimism within components of some projects (Box 2). It might also be argued that there has only been around 15 years of ICDP experience. Therefore, there has been simply not enough time for lessons learnt to become fully integrated into practice.

#### Box 2: Grounds for optimism?

The following case studies are supported by literature which document some successful outcomes from ICDP components:

- Annapurna Conservation Area Project, Nepal<sup>18,19</sup>: This project includes the local management of forests; seedling planting and distribution for private and project plantations; improvement in trails, health posts and schools; introduction of kitchen gardening and reduction in the use of chemical fertilisers and pesticides. Furthermore, there have been improvements in services along trekking routes, the introduction of alternative energy sources in the village and trekking hotels, and education in conservation.
- Bwindi Impenetrable Forest, Uganda<sup>20</sup>: The project based in Bwindi saw the successful change of attitudes of local people towards the protected gorillas, which they previously believed should be kept in zoos. Community members undertook substitution activities, such as tree planting, and cultivating medicinal plants. Certain medicinal plants and basketry species were harvested, whilst the community helped protect more vulnerable species. Additionally, traditional bee keeping has become more formalised.
- Lake Mburo National Park, Uganda<sup>21</sup>: 14 projects were completed, which gave assistance in the building of schools and clinics, training community members in health and tree nursery management, providing support to small-scale revenue earning businesses and assistance in the control of crop and damage by wild animals.
- Amoro National Park, Bolivia<sup>22</sup>: This project focused on local capacity building, training and raising awareness of the community. It was successful in raising awareness of environmental issues and the need for sustainable management of the National Park. Furthermore, as a community of migrants, the project improved community cohesion, and strengthened the relationships between the stakeholders and community

Other projects with successful outcomes include:

- Yancheng Coastal Zone Biosphere Reserve, China<sup>23</sup>;
- Crater Mountain Wildlife Management Area, Papua New Guinea<sup>24</sup>;
- Mount Elgon, Uganda<sup>25</sup>;
- Ngorongoro Conservation Area, Tanzania<sup>26</sup>;
- Kilim Ijum, Cameroon<sup>27</sup>;
- Kilum Mountain, Cameroon<sup>28</sup>;
- Ostional Wildlife Refuge, Costa Rica<sup>29</sup>;
- Various projects funded by the UK Department for International Development (DFID)<sup>30</sup>.

15 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

16 UNDP (2000) *Proceedings of Integrated Conservation and Development Projects Lessons Learned Workshop, June 12-13, 2000*. Hanoi: UNDP/World Bank/WWF.

17 Wells, M., Guggenheim, S., Khan, A., Wardjo, W. and Jepson, P. (1998) *Investing in Biodiversity. A Review of Indonesia's Integrated Conservation and Development Projects*. World Bank, East Asia Region.

18 Lama, Tshering Tempa, and Lipp, J. (1994) *Annapurna Conservation Area Project: Annual Progress Report 15th July 1993 – 14th July 1994*. King Mahendra Trust for Nature Conservation.

19 Stevens, S. (1997) *Conservation through Cultural Survival: Indigenous Peoples and Protected Areas*. Washington DC: Island Press.

20 Wild, R. and Mutebi, J. (1997) Bwindi Impenetrable Forest, Uganda: Conservation Through Collaborative Management. *Nature and Resources*, 33 (3-40).

21 Turyaho, M. and Infield, M. (1996) *Pastoralists, Fishermen and Farmers in and around Lake Mburo National Park. Changing Conflict into Awareness and Responsibility*. Community Conservation Discussion Papers No 6. Nairobi.

22 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

23 Ma, Z. et al. (1998) Habitat Change and Protection of the Red-crowned Crane (*Grus japonensis*) in Yancheng Biosphere Reserve, China. *Ambio* 27 (6) pp 461-465.

24 Johnson, A. (1997) Processes for Effecting Community Participation in the Establishment of Protected Areas: A Case Study of the Crater Mountain Wildlife Management Area. In: *The Political Economy of Forest Management in Papua New Guinea*. Filer, C. (ed.). NRI Monograph 21. Chatham: Natural Resources Institute and London: International Institute for Environment and Development.

25 Scott, P. (1998) *From Conflict to Collaboration. People and Forests at Mount Elgon, Uganda*. Gland: IUCN

26 Kijazi, A.J.H. (1996) *Multiple Land Use Protected Areas: Experience from the Ngorongoro Conservation Area*. Paper presented at the Pan African Symposium on Sustainable Use of Renewable Natural Resources and Community Participation, Harare, 24-27 June 1996.

27 Abbott, J., Neba, S.E. and Khen, M.W. (1999) *Turning Our Eyes from the Forest. The Role of Livelihoods Programme in Changing Attitudes and Behaviour Towards Forest Use and Conservation at Kilum-Ijim Mountain Forest, Cameroon*. Unpublished report for Birdlife International.

28 Foto, R.C. (1996) *Two Models for Biodiversity Conservation and Community Development Integrated Projects in Cameroon*. Paper presented at the Pan African Symposium on Sustainable Use of Renewable Natural Resources and Community Participation, Harare, 24-27 June, 1996.

29 Guitierrez, I., Ortiz, N. and Imbach, A. (2000) *Community Wildlife Management in Central America: A Regional Review. Evaluating Eden Discussion Paper No. 12*. London: International Institute for Environment and Development.

30 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

31 Mittelman, A. (2000) *Conservation and Development Linkages: Lessons Learned from 15 years of ICDP Experience in Thailand*. Paper prepared for presentation at an International Seminar on Integrated Conservation and Development: Contradiction of Terms? Copenhagen, Denmark, 4-5 May 2000. CARE Denmark, DANCED, DANIDA.

32 McShane, T. (1999) *Voyages of Discovery: Four Lessons from the NEDA-WWF Tropical Forest Portfolio*. Unpublished.

33 Stocking, M. and Perkin, S. (1992) Conservation-with-Development: An Application of the Concept in the Usambara Mountains, Tanzania. *Transactions of the Institute of British Geographers*, 17.

34 Kremen, C., Merenlender, A.M. and Murphy, D.D. (1994) Ecological Monitoring: A Vital Need for Integrated Conservation and Development Programs in the Tropics. *Conservation Biology*, 8 (6).

35 Wells, M., Guggenheim, S., Khan, A., Wardojo, W. and Jepson, P. (1998) *Investing in Biodiversity. A Review of Indonesia's Integrated Conservation and Development Projects*. East Asia Region: World Bank.

36 Mather, A. Needle, C. and Fairbairn, C. (1999) Environmental Kuznets Curves and Forest Trends. *Geography* 1999 (55-65).

37 For examples, see:

a. Barber, C. V. et al. (1995) *Tiger by the Tail? Reorienting Biodiversity Conservation and Development in Indonesia*. Washington DC: WRI and Jakarta: WALHLI and Pelangi Institute.

b. Friedlander, E. and de Greling, C. (1996) *Strengthening Wildlife Management and Ecodevelopment Planning Capabilities*. Project Terminal Evaluation. Delhi: United Nations Development Programme.

c. Kothari, A. (1998) *Ecodevelopment and Joint Management of Protected Areas: Legal and Policy Implications*. Draft Paper for Presentation at Seminar on Ecodocumentation, November 26-27 1998. Unpublished report. Dehra Dun: Wildlife Institute of India.

d. Barrett, C.B. and Arcese, P. (1995) Are Integrated Conservation Development Projects (ICDPs) Sustainable? On the Conservation of Large Mammals in Sub-Saharan Africa. *World Development*, 23 (7).

e. Brandon, K., Redford, K. and Sanderson, S. (eds.) (1998) *Parks in Peril. People, Politics and Protected Areas*. Washington DC: Island Press.

38 ICDP Lessons Learned Workshop, June 12-13, 2000, Hanoi, Vietnam. UNDP/World Bank/WWF

39 Barrett, C.B. and Arcese, P. (1995) Are Integrated Conservation Development Projects (ICDPs) Sustainable? On the Conservation of Large Mammals in Sub-Saharan Africa. *World Development*, 23 (7).

40 Wells, M., Guggenheim, S., Khan, A., Wardojo, W. and Jepson, P. (1998) *Investing in Biodiversity. A Review of Indonesia's Integrated Conservation and Development Projects*. World Bank, East Asia Region.

41 See:

a. Gartlan, S. (1996) *Falling Between Two Stools: The False Promise of Sustainable Development*. Cameroon. Unpublished.

b. Sanjayan, M.A., Shen, S. and Jansen, M. (1997) *Experiences with Integrated-Conservation Development Projects in Asia*. World Bank Technical Paper No 38. Washington DC.

42 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

43 Hughes, R. and Botelho, H. (2000) *Environmental Impacts of Support for Phase 2 of the Mamirauá Sustainable Development Reserve: A Scoping Study*. A Report to Sociedade Civil Mamirauá (SCM) and Department for International Development (DFID).

Therefore, the emphasis of the 'lessons learnt' literature focuses on drawing on experience from failed rather than 'successful' ICDP experience and proposing 'hypothetical' models of best practice<sup>31</sup>. The following sections are therefore restricted to the clearer themes emerging from the literature.

## 2.2 LINKS BETWEEN DEVELOPMENT AND BIODIVERSITY CONSERVATION

The literature contains a wealth of examples where causative links between conservation outcomes and the use of development tools are unclear. On the whole, it seems that links between development components of ICDPs (such as micro-enterprise development) and conservation objectives remain unproved, mainly through lack of monitoring and evaluation. This is usually because project design has not attempted to establish what one author has referred to as "*Coherent linkages between conservation objectives and their investment in local development*"<sup>32</sup>. Hence, as one study of experience in East Africa has pointed-out "*...the conservation and development linkages being addressed by the projects are in reality little more than working hypotheses, and the socio-economic and ecological dynamics of the ways in which these linkages might actually function are poorly understood*"<sup>33</sup>. However, despite the lack of analytical data on the relationship between conservation and development, projects based on these hypotheses continue to be designed and implemented.

Studies that have reviewed multiple case studies of ICDPs have portrayed a rather negative picture ICDP performance. For example, one review of thirty-six case studies found only five examples where projects had contributed, demonstrably, to biodiversity conservation<sup>34</sup>. Likewise, a review of ICDP performance<sup>34</sup> in Indonesia concluded:

*'...very few ICDPs in Indonesia can realistically claim that biodiversity conservation has been or is likely to be significantly enhanced as a result of current or planned activities ...'*<sup>35</sup>

A fundamental premise of ICDPs is that enhanced livelihood options and incentives in and around protected areas will lead to reduced pressure on biodiversity. The premise for this assumption is that, as communities 'develop', their dependency on the range of wild and other natural resources will decline. Whilst some studies support this notion (for example, studies of deforestation in Thailand and Philippines<sup>36</sup>), others question its validity<sup>37</sup>. Interestingly, there appears to be a growing divergence between the increasingly sceptical views held by donors and practitioners on ICDP performance (as reflected in the 'lessons learnt' literature); and the more positive assertions and analysis found within the other literature, especially material that seeks to provide practical guidance to ICDP practitioners. A recent workshop "*Lessons Learned from ICDP practice in Vietnam*"<sup>38</sup> revealed clearly that the conceptual basis proposed by ICDP practitioners – that the use of development tools to achieve conservation objectives – was neither understood by implementing counterparts in national and provincial government, nor sufficiently integral to ICDP design and practice.

Some authors have suggested that enhanced living standards adjacent to protected areas can stimulate demand for meat and other wildlife products, and thus undermine conservation management objectives<sup>39</sup>. There is also some anecdotal evidence that enhanced livelihood opportunities created by ICDP interventions have led to in-migration and/or higher pressures on biodiversity resources demonstrated by examples from Sumatra (forest resource use at Kerinci National Park<sup>40</sup>) and Sulawesi (seaweed harvesting at Bunaken<sup>41</sup>). However, this review did not discover any well-documented examples of this potential trend.

## 2.3 EQUITY ISSUES

ICDPs inherently seek to re-distribute the costs and benefits associated with natural resource management. A study of several UK DFID projects revealed that this can sometimes result in more sustainable patterns of resource use, sometimes not<sup>42</sup>. For example, the Lago Mamirauá Ecological Reserve Project in Brazil balanced the costs and benefits through designing and negotiating new harvesting rules and regimes between local user and external communities. However, the resultant shifts in resource entitlements appear to have exported the over-use of biodiversity to other areas<sup>43</sup>. Thus, the study argued that



ICDP projects should use the inclusion or exclusion of particular groups with great care, ensuring full consideration for social, institutional and economic sustainability<sup>44</sup>.

For most ICDPs, rather little information is available on any resultant re-distribution of costs and benefits between different stakeholder groups, such as minority ethnic groups, women or those displaced by protected areas establishment. Also “*In South and Southeast Asia, perhaps the majority of the 200-300 million people who live in close association with the forests are socially and culturally distinct from the ethnic majorities outside the forests*”<sup>45</sup>. Often these groups are heavily dependent on resources alienated for conservation land use. Conversely, the implications of inequitable distribution of ICDP benefits to such groups on ICDP design and performance (such as the degree to which local groups comply with agreements and resource-sharing arrangements negotiated by the ICDP project) remain unclear and largely undocumented. Those that have been undertaken reveal the complexities of addressing equity in project design and benefit sharing.

Few studies within the ICDP literature pay much attention to gender issues. There are notable exceptions, and these tend to be studies and evaluations that have applied more participatory forms of analysis<sup>46</sup>. One case study of an ICDP project in Zambia provides a succinct analysis of the problems that can occur if gender issues are not sufficiently well addressed:

“...there are social restrictions on female participation in community gatherings and discussions, as well as societal views that favour the education of boys rather than girls. As a result, women become further displaced and marginalised within the community, as their male counterparts are more educated and have greater access to outside opportunities. It is only by addressing these fundamental socio-cultural obstacles and developing systems that include women as partners and equal constituents of the rural community, that full participation and development opportunities for all people of the community are achieved”<sup>47</sup>.”

A number of research studies have found that ICDPs, which base their implementation on social units that are ‘inappropriate’ to local and traditional forms of social organisation, may not achieve the required level of participation. This can lead to problems of equity over access to resources or benefits accruing from the ICDP, or to problems of non-compliance with ‘rules’ and/or ‘agreements’ negotiated by ICDP projects<sup>48, 49, 50</sup>. Based on anthropological research in Brazil, the implications for ICDP design and implementation of hierarchical kinship groups have been found to be significant – kinship hierarchies were found to significantly constrain the participation of certain households and family members. This was thought to have lowered prospects for ‘collective action’ in addressing priority resource management problems.

## 2.4 THREAT IDENTIFICATION

Ensuring that ICDPs respond to the underlying factors of ecologically unsustainable resource use is critical to project success. Implicit in ICDP design is the assumption that ‘local people’ and their resource management approaches are the underlying cause of resource degradation<sup>51</sup>. Based on this assumption, ICDPs often re-orient resource use patterns in order to alleviate human pressure on protected areas. External trends (e.g., expanding market demand or improved market access for forest or wildlife products; demographic pressures) and vested interests (e.g., illegal logging, mineral extraction or ranching) are often overlooked, or avoided, perhaps because these are considered too difficult to address. Indeed, the role of other social and political actors is rarely commented upon in the literature reviewed. A study of ICDPs in Indonesia found that despite local communities being the principal focus of conservation activities:

“*In a ranking of threats to the 21 PAs ... [it was] found that direct threats from local communities ranked well behind road construction, mining, logging concessions and sponsored immigration*”<sup>51</sup>.

In most circumstances, most villagers or farmers within ICDP target areas will have a range of relationships and dependencies on actors such as credit providers, local officials

44 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

45 Colchester, M. (1994) Sustaining the Forests: The Community-Based Approach in South and South-East Asia. *Development and Change* 25: 69-100

46 See:

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47 Wainwright, C. and Wehrmeyer, W. (1998) Success in Integrating Conservation and Development. A Study from Zambia. *World Development*, 26 (6).

48 Gillingham (in press) *Social Organisation and Participatory Resource Management in Brazilian Ribeirinho Communities: A Case Study of the Mamirauá Sustainable Development Reserve, Amazonas*. Mamirauá Project, Amazonas, Brazil.

49 Gibson, C. and Marks, S.A. (1995) Transforming Rural Hunters into Conservationists: An Assessment of Community-Based Wildlife Management Programmes in Africa. *World Development*, 23.

50 Adams, M.W. and Thomas, D.L. (1996) Conservation and Sustainable Resource Use in the Hadejia-Jama'are Valley, Nigeria. *Oryx*, 30 (2).

51 Indeed, it could be argued that ICDPs are inherently designed to address problems of local resource over-exploitation.

52 Wells, M., Guggenheim, S., Khan, A., Wardojo, W. and Jepson, P. (1998) *Investing in Biodiversity. A Review of Indonesia's Integrated Conservation and Development Projects*. World Bank, East Asia Region.

and landowners, most of whom are unlikely to share the same priorities or economic interests of the ICDP project.

Shortcomings in ICDPs caused by poor threat identification appear to be widespread, and relate to a number of factors. Pressures exerted by the demands of donor project cycles have undoubtedly contributed to ‘rushed’ project design missions in which issues and threats can easily be overlooked, misunderstood or simply ignored. Use of external consultants unfamiliar to local contexts has also been cited as a reason for inappropriate threat identification<sup>53</sup>.

Linked to the difficult issue of addressing ‘external’ factors is a growing recognition that greater attention is needed to approach conservation and development approaches within the broader context of regional planning<sup>54</sup> and ensuring projects realistically consider institutional, legal and tenurial constraints to securing rights and access to resources. As Colchester (1994)<sup>55</sup> has pointed-out in relation to experience in Southeast Asia, “*the most severe problem that forest peoples face throughout South and Southeast Asia is the lack of recognition of their customary rights to their land*”.

## 2.5 SUSTAINABILITY OF ICDP COMPONENTS

The question of how sustainable ‘alternative’ livelihood approaches are likely to be is increasingly questioned. Two studies undertaken of ICDPs that focus on sustainable harvesting of game animals in Africa have drawn attention to the problems that many ICDPs will face when the human populations around parks grow. These point-out that, eventually, a point will be reached when sustainable harvests can no longer provide satisfactory benefits on a cost *per capita* basis<sup>56</sup>. One study outlined some key questions that are rarely answered before the marketing of biodiversity products is introduced as a component of ICDP design, for example:

- How experienced are local people in marketing?
- How stable are the markets likely to be?
- What institutional relations are required for success<sup>57</sup>?

There is also concern that few of the internationally-funded ICDPs appear to be financially or economically sustainable once external funding has been exhausted<sup>58</sup>. Indeed, this review discovered a general lack of analytical and guidance literature concerning experiences of, and approaches to, such issues. Box 3 provides some common examples and Box 4 provides an example of project sustainability in Indonesia:

### Box 3: Risks to the Sustainability of ICDP Project Components

#### Examples of Common ICDP Activities

- Negotiating lasting resource management agreements
- Stimulating and sustaining effective micro-enterprise developments
- Eco-tourism
- Enhancing market access for niche products

#### Sustainability ‘Risk’

- Pre-existing social organisations and arrangements which contribute to resource degradation will eventually replace institutions of resource management agreements introduced and negotiated by the ICDP<sup>59</sup>.
- ‘New’ enterprises introduced or supported by project intervention will compete on a subsidised basis with existing private sector businesses. Project intervention would then comprise a distorting subsidy, which, when removed, will cause ‘new’ activities to be unprofitable.
- Conflict or political factors deter tourism at macro-level. Market size overestimated. Eco-tourism impacts on resource base.
- Activities will prove unsustainable once the project withdraws financial or technical support, or will fail to generate adequate incentives to encourage improved resource management.
- New livelihood initiatives may prove to undermine the resource base on which they depend (e.g., disturbance of wildlife by tourist visitors).

53 Worah, S. (2000) International History of ICDPs. In: UNDP (2000) Proceedings of Integrated Conservation and Development Projects Lessons Learned Workshop, June 12-13, 2000. Hanoi: UNDP/World Bank/WWF.

54 See:  
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59 See Gillingham (in press) Social Organisation and Participatory Resource Management in Brazilian Ribeirão Communities: A Case Study of the Mamirauá Sustainable Development Reserve, Amazonas. Mamirauá Project, Amazonas, Brazil.

#### Box 4: Experience of generating conservation incentives through tourism development in Indonesia<sup>60</sup>

Generating local benefits directly from ICDP-supported protected areas (PA) has not proved easy in Indonesia. Tourism revenues have not so far lived up to expectations, although they could become significant for a few PAs on Java and the marine PAs with attractive coral reefs. Entry fees are very low (less than \$1), with 70% passing to local government and 30% to central government. This provides no incentive for PA managers to increase the number of visitors or improve the quality of visitor experiences. Under existing fee and regulatory arrangements the opportunities for even the most-visited PAs to become financially self-sufficient is very limited.

## 2.6 MONITORING AND EVALUATION

The review revealed a real lack of objective literature on the monitoring and evaluation of ICDP projects. The few studies that have been carried out point out that ICDP projects have often failed to develop adequate monitoring and evaluation systems for measuring both the biological or developmental impacts of implementation<sup>61, 62</sup>. It is for this reason that drawing objective conclusions concerning overall ICDP performance, whether at the project or strategic level, is so difficult. As one study comments:

*“... Since monitoring reports of previous eco-development sites are not available, it is not possible to say whether the strategy of 'diverting' pressure has worked ... in conserving wildlife ... This may well be happening, only we cannot be sure in the absence of long-term studies<sup>63</sup>”.*

A review of DFID's livelihood and biodiversity projects concluded:

*“Without monitoring of the species/ecological communities that a project may be seeking to protect or to enhance the sustainable use of, there can be little reliable evidence to show the impact of such activities<sup>64</sup>”.*

Another study noted, *“A recurring theme ... was the urgent need to replace anecdotal accumulation of ICDP results with hard data by establishing effective monitoring systems”*. Some projects have attempted to monitor and evaluate the impact of specific activities on development indicators, whilst others have introduced scientific and data-intensive monitoring of biodiversity. Few have attempted to link biodiversity with socio-economic monitoring. Thus, in general, it has not been possible to test whether the introduction of alternative livelihood interventions has resulted in more sustainable management of biodiversity resources. The reasons for this reluctance to include objective monitoring, evaluation and reporting are varied and often unclear. In some cases, this might be because proponents are anxious to avoid criticism in order to save face and/or retain funding<sup>65</sup>.

There are a number of examples where innovations in participatory monitoring and evaluation could deliver information of real use to ICDP and protected area managers, whilst also proving more cost-effective than conventional data-intensive forms of monitoring<sup>66</sup>,

<sup>67, 68</sup>

60 Wells, M., Guggenheim, S., Khan, A., Wardojo, W. and Jepson, P. (1998) *Investing in Biodiversity. A Review of Indonesia's Integrated Conservation and Development Projects*. World Bank, East Asia Region.

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a. Kremer, C., Merenlender and Murphy, D. (1994) *Ecological Monitoring: A Vital Need for Integrated Conservation and Development Projects in the Tropics*. *Conservation Biology*, 8 (2).

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62 Smith, D., Hughes, R. and Swiderska, K. (1998) *Review of Lessons Learnt from DFID-supported Biodiversity and Livelihoods Development Projects*. Unpublished report for the UK Department for International Development. Internet: <http://www.iied.org/blg>

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### **3.0 NEXT STEPS**

A few overall recommendations for further work can be drawn from the literature reviewed. These include the following:

#### **Further research**

- More rigorous validation of the assumptions on which ICDPs are based, as there is still insufficient empirical evidence to suitably ‘prove’ the case.
- More effective learning from successful ICDPs, especially with regard to the criteria for success (e.g., what are the appropriate ‘enabling conditions’ for ICDPs to succeed; what design characteristics do they share; or how can levels of flexibility and responsiveness in project design be balanced with the needs of donors?)

#### **Threat analysis**

- Less reliance on untested assumptions of threats to protected areas.
- Less reliance on consultants unfamiliar with national and local contexts to design projects.
- Greater attention to careful problem analysis that gives careful consideration to both direct, indirect and external factors. Analysis of the influence on the project of the wider policy and institutional context is especially important as this can have an enormous influence on whether the project will succeed or not. ICDPs should be more aware of and be able to respond to such factors.
- Introduction of design approaches that are careful to respond to local knowledge and experience (e.g., by using participatory research and planning methodologies).

#### **Design**

- Greater attention to developing appropriate design processes and approaches, such as combining participatory and conventional approaches to problem analysis and planning.
- Greater attention to analysing equity issues, such as actual or potential impacts on ethnic, gender and different age groups and on stakeholders residing inside and outside protected areas and ICDPs.
- Project design needs to demonstrate that ICDPs don’t simply export or relocate problems elsewhere!
- Plan for long-term commitment: start small, learn and scale-up gradually as capacity improves.

#### **Monitoring and Evaluation**

- Institutionalise rigorous monitoring and evaluation (M&E) systems, using appropriate indicators (special efforts need to go into developing indicators that link biodiversity conservation and livelihood interests) and avoiding the collection of superfluous data. A procedure whereby the data collected can be independently verified would help institute greater transparency. Whilst some indicators will be generic to many ICDPs, others will be location and context specific. Monitoring and evaluation needs to be fully integrated into project design.
- M&E systems should inform ICDP project management, partners and donors alike.

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