

National Parks and Poverty Risks: Is Population Resettlement the Solution?

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Table of Contents

I. Introduction	3
II. “Double Sustainability” and the State of our Knowledge	3
III. The Impoverishment Risks Model and Conservation-Caused Displacements	7
a) Facing the risk of landlessness	12
b) Facing the risk of joblessness (loss of income and subsistence).....	14
c) Facing the risk of homelessness	16
d) Facing the risk of marginalisation.....	16
e) Facing the risk of food insecurity.....	16
f) Facing the risk of increased morbidity and mortality	17
g) Facing the risk of loss of access to common property	17
h) Facing the risk of social disarticulation.....	18
IV. Findings from Park Studies in East Africa	19
V. Facing New Risks of Biodiversity Loss: How the Displacements Backfire	22
VI. Are Remedies to Forced Displacement Feasible?	24
VII: Bibliography	27

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Abstract

Is the dilemma between biodiversity conservation and poverty reduction insoluble? This dilemma frequently arises in park creation programs, when the intended park areas are inhabited by poor indigenous populations. Advocated “solutions” have often been cast in “either-or” terms, with a long entrenched bias against resident or mobile people in parks. Very often, the intervention pattern is the wholesale treatment of land as state property, denial of customary ownership and indigenous traditional rights to land and assets, and the forced displacement of people. It is imperative to re-examine and confront this dilemma through integrated social and biological research apt to lead to socially improved conservation policies and interventions. Solutions are needed for achieving “double sustainability” for both: peoples’ livelihood and biodiversity. The recent WSSD recommendation that 10% of the planet’s land area should be protected as national parks increases the urgency of joint social and biological research.

In this light, the paper brings empirical evidence from 12 detailed park case-studies carried out in 6 countries of the Congo-basin ecosystem of Central Africa and also analyzes convergent from the scientific literature, generated by field research in East Africa or elsewhere. The creation of national parks in the heart of the rainforest has involved forced population displacement. There is no ‘no-man's land’. In the 12 case studies discussed, we found that the strategy to conserve biodiversity through national parks has displaced many tens of thousands of very poor park residents, transforming them into conservation-refugees, and has negatively affected additional large numbers of people as host populations.

The fieldwork findings are analyzed through the conceptual lens of the *Impoverishment Risks and Reconstruction (IRR) Model*, which identifies eight major impoverishment risks within the displacement or resettlement process: the risks of landlessness; joblessness; homelessness; marginalization; increased morbidity/mortality; food insecurity; loss of access to common property resources; and social disarticulation. Research found that if parks achieve additional degrees of conservation, part of the cost is paid in the coin of additional impoverishment for the people uprooted from their habitat and not resettled in a sustainable manner.; in turn, the ecological impacts on parks and surrounding forests are a mixture of positive and negative effects, at least partly defeating the conservation purposes. Comparisons with research findings from other parts of the developing world on the conservation-induced displacement of indigenous people reinforce our argument.

We argue that the understanding of the impoverishment risks to people is a *sine qua non* prerequisite for avoiding them and for creatively researching alternative socially sustainable solutions. Forced displacement as a mainstream park creation strategy in developing countries is in profound conflict with poverty reduction. Our analysis of forced displacements found that such displacements **cannot** and must not be counted upon any longer as a general and mainstream solution.

Summing up decades of experiences with the population displacement approach, we argue that this strategy has exhausted its potential and its credibility, produced much damage, did not fulfill the expectations placed on it, and compromised the very cause of biodiversity and park/forest conservation by inflicting aggravated poverty on countless people. Therefore, we recommend a change in intervention policies of governments, donor agencies and international NGOs: the displacement approach to conservation must be “de-mainstreamed”, in favor of joint management approaches. Informed by the theoretical framework of the Impoverishment Risk and Reconstruction (IRR) model and by the World Bank’s and OECD’s policy standards for involuntary resettlement, we conclude by arguing for poverty reduction and social sustainability for the conservation-refugees, and for reconstructive strategies that secure livelihoods and development and that enduringly protect the biodiversity.

I. Introduction

The question examined in this paper is not whether there should be an increase in biodiversity conservation, including an increase in protected areas. There will be and there has to be. Nor is the question, whether people's livelihood and rights must be protected and enhanced. They have to be. Nor – least of all – is it a question of whether these two considerations are interlocked. They are. The solutions to the dilemmas of protecting both biodiversity and livelihoods clearly revolve around the 'how', not around the 'whether'. The adequacy and effectiveness of **means** are under scrutiny.

The present study takes a firm position in support of biodiversity conservation and analyzes empirical findings that question some of the means for achieving it. We focus on population displacement processes as a strategic approach to park creation examine the outcomes, benefits, and risks of this approach, and propose several research-based recommendations. Since the present paper is a shortened version of a longer study, we present for discussion only major aspects, specifically:

- First, a theoretical framework to analyze the anatomy of impoverishment risks inherent in forced displacements from parks and forests.
- Second, recent empirical findings on displacements of indigenous groups from 12 parks in Central Africa, compared with research in other parts of Africa and the developing world.
- Third, it briefly reviews options, practiced or proposed, for alternative solutions in the search for a better balance between biodiversity and social sustainability. The paper formulates recommendations on displacement policies and on future research.

II. “Double Sustainability” and the State of our Knowledge

The vexing dilemma between preserving biodiversity and protecting the livelihood of populations deemed to endanger this biodiversity is neither new, nor easy to solve. The concept of a “vexing dilemma” is repeated rhetorically as a mantra, but repeating the mantra is not equal to overcoming the dilemma. Empirical knowledge has not been available equally about both terms - the social and the bio-physical - of this dilemma. This asymmetry in information and knowledge has created a discrepancy, with far reaching effects on policies, resource allocation, governmental practices, and with pressing demands upon future scientific interdisciplinary forestry research.

Biological sciences have devoted a broader, deeper and more systematic research effort than the social sciences for understanding what is happening when biodiversity is lost, how this occurs, and what consequences result. Social scientists have not been absent from the debate, but their analyses of livelihood issues in parks and outside them has been less systematic and more happenstance (mostly through case reports, but with little or no syntheses). Social research has not developed a cogent *generalized* argument apt to escalate the social issues vested in conservation work at the same higher policy levels at which biological sciences research had succeeded to articulate and place their concerns³. This has resulted in a perceivable lingering imbalance in the public discourse about the two sides of

³ In some cases, one sidedness and long entrenched narratives and biases work to block the recognition of social science findings (see Ghimire & Pimbert et al., 1997).

the dilemma, in which the social side of the discourse is left insufficiently linked to the systematic economic, cultural and legal analysis, statistical evidence and operational policy argument.

The upshot of this imbalance is that the solutions proposed on either side of the dilemma are, in turn, one-sided, and thus also imbalanced. They tend to be clearer and directly prescriptive on the biological side, and fuzzier, insufficiently imaginative, and little tested on the social side. Further, the biological concerns have gained policy backing and financial resources toward their practical implementation (park establishment) while the recommendations made by social research remained both under-designed and woefully under-resourced (Cernea, 1999; Schmidt-Soltau 2002a).

Today, research is called upon to face the simultaneous challenges of ‘double sustainability’ – both biodiversity and socio-economic. Real sustainability must be concomitantly ecological and social. This is a major challenge for policies, for practice and for research. We address this challenge in the present paper in terms of the relationship between goals and means.

Research on biodiversity and forests must aim at finding *integrated* solutions for conservation, poverty reduction and improved livelihood, rather than pursuing such objectives separately. This integrated pursuit of two-fold sustainability was adequately captured by CIFOR in a newly proposed research program:

‘**The Challenge** arises from two persistent, interlinked problems of overwhelming importance: rural poverty in the tropics and the continuing loss of unique forest ecosystems. The problems are dauntingly complex: the search for solutions must be linked to attain *a workable mix of conservation and development at large spatial scales*. The **opportunity** is to enhance the production systems and expand the diversity of livelihood options available to poor people in forest landscapes while maintaining environmental functions and conserving biodiversity’ (CIFOR 2002 - emphasis added. We note that IUCN and WWF co-sponsor this important joint program submitted for approval and financing to CGIAR and international donors)

It is indeed most important to centrally place the poverty issues, not only the biological and other technical issues, on the agro-forestry research map. This is why. The important principle is that workable solutions to the challenge of conserving the rainforest must be sound on **both** biodiversity and social/poverty grounds. Solutions that reduce biodiversity would not be acceptable as strategies for poverty reduction and, conversely, solutions that aggravate poverty would be unacceptable as means for preserving biodiversity. This is **fundamentally relevant** to the argument we develop in the present paper.

Examining population displacement as a ‘means’ for protecting biodiversity through parks, we have found through both *prima facie* field research in Africa and secondary analysis of empirical findings worldwide – that involuntary displacement as currently practiced does not reduce existing poverty: on the contrary, it aggravates the poverty of affected indigenous people. Conservation benefits, however, cannot be paid for in the coin of increased impoverishment. Therefore, we argue in this paper for a profound reconsideration of population displacement issues, means, and validity, and for a sound increase of biodiversity conservation efforts through alternative means of improved co-management approaches.

**Preventing a Major Population Displacement:
Forest People in Cote d'Ivoire**

The Government of the Cote d'Ivoire had submitted a few years ago a request to the World Bank for a forestry-sector project. The project was intended to prepare and introduce forest management plans for several high priority forest areas, strengthen institutionally the Ministry of Agriculture and Forestry, and facilitate what was described as (doubtfully) sustainable commercial exploitation of the forest. During the appraisal, the possibility of resettlement operations came up, as part of a wider set of measures to demarcate limits and improve surveillance and management of 1.5 mil ha of gazetted forests, protect the Comoé National Park, expand infrastructure, improve logging and the log export system, expand new plantation, and other measures. For the resettlement operations, the Government undertook to carry out detailed demographic and land-use studies, detailed study and mapping of the potential resettlement areas within or outside the gazetted forests, 'implementation of a resettlement plan giving beneficiaries a land area at least equal in size and production potential to the production unit eliminated' (World Bank 1990: 48).

Only late, did the authorities inform the World Bank about the full size of the intended displacement - estimated at about 200,000 people - after having understated it previously. The Bank rejected this proposal, and sought and received agreement on a different approach to resettlement, congruent with Bank policy, which would reduce displacement from about 200,000 to less than 40,000; provide better conditions for resettlers; consolidate existing scattered populations into 'agro-forestry zones' within the legal limits of classified forest; and integrate resettlers into forest management general plans. This approach was new for Côte d'Ivoire and was not considered before the Bank-assisted project. What could have been a massive and violent uprooting for tens of thousands of people was averted and was placed on a totally different track at project appraisal.

During implementation, however, the Bank's regular supervision mission had to constantly oppose the attempts of the Ministry to still proceed to displacement without the safeguard measures agreed upon, without the planned studies, and without having earmarked any areas equal in size and production capacity, as promised at the outset by the Government. Despite continuous requests over several years by the Bank, the Government did not adopt a formal policy on sound resettlement. At least, however, the displacements were prevented due to the Bank's firm opposition based on the legal agreement signed for this project and due to regular monitoring missions. By the end of the project, seven years later, the Completion Implementation Report indicated that only 100 people were displaced, instead of the Government's intended 200,000 people. The Completion Report did not provide any evidence that the de facto cancellation of the initially intended displacement plans, and even of the reduced plans agreed with the World Bank, has had the negative effects which were announced and were used to justify the planning of massive displacement. After 1997 data are not available. But indications exist that massive commercial logging has significantly expanded in Cote d'Ivoire's forests, with likely more adverse effects on forest conservation than the impact of the residing forest inhabitants. (cf. World Bank 1990, 1996, 1997).

In Central Africa – the area of this paper's empirical investigations -, governmental institutions, bilateral governmental agencies and international agencies adopted strategies to protect as much undisturbed forest as possible (Weber et al 2001, CARPE 2001, Ribot 1999). The aggregated data of table 1 fully support the estimates by IUCN and CIFOR on the urgency of counteracting forest degradation and loss. On average, 60 % of the tropical forest and 60 % of the wildlife habitat have been destroyed. The Yaoundé Declaration of 1999, ratified by 7 Central African heads of state expresses the consensus that the establishment of national parks and other protected areas in this sub-region is the most effective instrument to protect nature (Sommet 1999). By 2002 the Central African heads of state had fulfilled their promises made in the Yaoundé Declaration and nearly doubled the surface area of protected forests in the region. While the 2002 WSSD in Johannesburg just maintained the goal that 10 % of all land should be protected, the heads of states in

the Central African sub-region came up with the plan that in 10 years time not less than 30 % of the landmass of their states will be protected as national parks (COMIFAC 2002).

Table 1: Deforestation and protection indicators in the Congo basin countries⁴

Country	Total Area km ²	Original Tropical Forest in km ²	Remaining Tropical Forest (1992) km ²	Forest Loss (%)	Remaining wildlife habitat (1995) km ²	Habitat loss (%)	Protected Forest (1994) km ²	Protected Forest (2002) km ²	Protected Forests (2002) (% of remaining forest)	Population Density (1995) people/km ²
Cameroon	475,440	376,900	155,330	59	192,000	59	11,339	26,135	16.8	28.4
Central African Republic	622,980	324,500	52,236	84	274,000	56	4,335	4,335	8.3	5.3
Equatorial Guinea	28,050	26,000	17,004	35	13,000	54	3,145	8,295	48.8	14.3
Gabon	267,670	258,000	227,500	12	174,000	35	17,972	23,972	10.5	5.1
Nigeria	910,770	421,000	38,620	91	230,000	75	2,162	2,162	5.6	122.7
Republic Congo	341,500	341,500	212,400	38	172,000	49	12,106	27,136	12.8	7.6
Total/Average	2,646,410	1,747,900	703,090	∅ 60	1,055,000	∅ 60	51,056	92,035	13.1	∅ 50.2

The question is whether this new extension of protected areas will be again predicated on forced displacement and further impoverishment of resident and mobile people living in these areas. This legitimate question is triggered by the fact that no explicit policy rules, guidance and strictures regarding forced population displacements, physical or economic, accompany the new park creation goals of the Central African governments.

On the social side of our vexing dilemma, the livelihood/development side, the picture is much bleaker. So far, the premise of many parks across the developing world has been, time and time again, the same: the forcible uprooting of resident and mobile forest populations, often coerced violently to relocate somewhere else, yet not quite clearly where, unsustainably and without receiving by far the same legal protection and financial resources as provided for the preservation of non-human species. Furthermore, no single UN Convention has been adopted by the international community to protect the interests and livelihoods of the involuntarily displaced populations, comparable to and mirroring the UN Biodiversity Convention. And no powerful worldwide institution parallel or comparable to the GEF has been established to deal with the social side of our vexing dilemma. This is what we mean by disequilibrium in current practices.

We, therefore, argue that a broader empirical synthesis of the outcomes of forcibly uprooting residents, and a policy re-examination based on it, must be undertaken.

Over a decade ago, Brechin et al (1991), while emphasizing the need for conservation, noted that both scholars and professionals lack systematic knowledge about the social impacts of park displacements. They asked for a theoretical model capable to predict the cumulated effects of displacement **before** the decisions to displace people are made:

‘What is too little understood, both by professionals and scholars alike, is the social impact of displacement and relocation. When resident peoples are forced to move, certain general impacts can be expected but the collective social impact on the community (or other social organization) differs widely from case to case; to date, no model exists to predict the cumulative effect... The

⁴ **Source:** Naughton-Treves & Weber 2001: 31-33; Perrings 2000: 14; Data 2002: COMIFAC 2002.

concern is the negative effects it can have on the rural poor... In addition to concerns of human rights, conservationists need to be aware of the effect that protected-area establishment, subsequent relocation, and denial of access to resources might have on the attitudes of local people towards the protected area itself" (Brechtin et al. 1991: 17/8).

The need for a consistent conceptual approach to social impacts has been emphasized also by donor agencies, IUCN, and many scholars. This need arises from findings that 'policies which ignore the presence of people within national parks are doomed to failure' (McNeely 1995: 23). The literature had documented again and again that 'eviction from traditional lands has been typically disastrous to those affected' (Cernea 2000, 27). The Oxford International Conference on *Displacement, Forced Settlement and Conservation* called as well for the study of the 'victims of conservation' (Chatty & Colchester, 2002; see also earlier analyses by Goodland, 1991). Nevertheless and despite all requests, satisfactory practical guidelines on how to harmonize biodiversity conservation and poverty alleviation are still missing.

III. The Impoverishment Risks Model and Conservation-Caused Displacements

Partly in response to requests for a 'cumulative model', as well as in response to other issues on the development agenda, one of this paper's authors, Michael M. Cernea, has developed during the early and mid-90s a conceptual model of the risks of impoverishment embedded in the development-induced displacement and resettlement of populations. This model of *Impoverishment Risks and Reconstruction (IRR)* was first used on a large scale, and with significant findings, in a World Bank analytical study of some 200 of its financed development projects that entailed involuntary displacement (Cernea and Guggenheim [1994] 1996; see also Cernea 1997a,b, 2000).

The origin of the IRR model is both empirical and theoretical. Empirically, the model is distilled from the extraordinary accumulation of research findings by sociologists, anthropologists, geographers, political scientists, environmentalists and others during the last three decades in many countries. Theoretically, it builds upon the new state-of-the-art of both resettlement research and poverty-related research. The IRR model has been tested and applied in numerous large studies, including in the World Commission of Dam's report (WCD 2001), in an all-India monograph (Mahapatra, 1999) and other many Indian books and studies on population displacement, in numerous resettlement studies in the irrigation and mining sector (Downing, 2002), etc. and is used now operationally by major development agencies (ADB, the World Bank) and in resettlement planning.

In national parks, a first systematic study of indigenous population displacement under the lens of the IRR model was carried out in 12 protected areas and national parks in 6 Central African countries (table 2) by Kai Schmidt-Soltau, the other author of this paper, between 1996 and 2003. Some field visits resulted from consultancy assignments directly related to resettlement, dislocation and questions of landownership, others were official or personal research visits. Some of the principal findings of the analyses are provided in this paper.

Tab.2. Protected areas in Central Africa analyzed in this study⁵

Name (1)	Country	Promoter (2)	Total Area in km ² (3)	Impact on local populace (4)	Population (5)	Density (people/ km ²)	Compensation (6)	Success? (7)
Dja Bio. Reserve	Cameroon	ECOFAC	5,260	Expulsion of Pygmy-bands Expropriation	~ 7,800	1.5 (17)	No No	No No
Korup NP	Cameroon	WWF	1,259	Involuntary resettlement of villages Expropriation	1,465 (8)	1.16	Yes No	No No
Lake Lobeke NP	Cameroon	WWF	2,180	Expulsion of Pygmy-bands 'Expropriation	~ 4,000	~ 2 (9)	No Partly	No No
Boumba Beck NP	Cameroon	WWF	2,380	Expulsion of Pygmy-bands 'Expropriation	~ 4,000	~ 2 (9)	No Partly	No No
Dzanga-Ndoki NP	CAR	WWF	1,220	Expulsion of Pygmy-bands Expropriation	~ 350	0.25 (10)	No Partly	No No
Nsoc NP	Equatorial Guinea	ECOFAC	5,150	Expulsion of settlements Expropriation	~ 10,000	1.98 (11)	No No	No No
Loango NP	Gabon	WWF	1,550	Expulsion of settlements Expropriation	~ 2,800	~ 1.8 (12)	Partly Partly	No No
Moukalaba-Doudou NP	Gabon	WWF	4,500	Expulsion of settlements Expropriation	~ 8,000	~ 1.8 (12)	Partly Partly	No No
Ipassa-Mingouli	Gabon	Brainforest	100	Expulsion of Pygmy-bands Expropriation	~ 100	1.1 (13)	No Partly	No No
Cross-River Okwangwo Div.	Nigeria	WWF	920	Involuntary resettlement of villages Expropriation	2,876 (14)	3.13	Yes No	Has not started
Nouabalé Ndoki NP	Republic of Congo	WCS	3,865	Expulsion of Pygmy-bands Expropriation	~ 3,000	~ 1.5 (15)	No Yes	No Yes
Odzala NP	Republic of Congo	ECOFAC	13,000	Expulsion of Pygmy-bands Expropriation	~ 9,800	0.75 (16)	No No	No No
Total			41,384		~ 54,000	Ø 1.3		

⁵ **Sources and definition:** 1= Some of these parks do not have clearly defined names, like Nsoc in the south east of Equatorial Guinea. 2= A 'Promoter' is an organization which appealed to and assisted the national government in the implementation of the specific national park. 3= See Sournia 1998, Schmidt-Soltau 2002c. 4 = While 'involuntary resettlement' is an organized approach in which the local population receives assistance through the national government and/or the promoter, the term 'expulsion' in this paper is used for forced displacement imposed without significant assistance and regulated compensation, in kind and cash, from a village or settlement that is permanently inhabited- 'Expulsion of pygmy-bands' refers to the expulsion of 'pygmies', which do not utilize permanent settlements, from some parts of the forest utilized and inhabited by them on a temporary basis. Dispossession refers to cases in which the national government or the promoter did not recognize common law ownership or usufruct rights - such as traditional land use titles - as legal title, and in which the elementary rules of expropriation with compensation and allocation of titled alternative land are not respected. 5 = Most data are rough estimates based on published and unpublished data. 6 & 7= We understand a displacement as success, when all parties involved are satisfied with the outcome of the displacement and the change of land-use patterns. Compensation refers to financial mitigation towards livelihood restoration, which must be offered to the resettlers. A partial compensation refers to compensation for only one or some of the assets taken away, or for damage inflicted, but does not offer the full array of assistance. 8 = Schmidt-Soltau 2000:6; 9=PROFORNAT 2003, Curran & Tshombe 2001:521, FPP 2003; 10=Noss 2001:330; 11=Schmidt-Soltau: unpublished data; 12= MDP 1994 & IFORD 2003; 13=MDP 1994 & IFORD 2003; 14=Schmidt-Soltau 2001:20; 15=PROECO 1997; 16=Joiris & Lia 1995:41, 17=Abilogo et al 2002: 10, FPP 2003. While several elements of conservation induced displacement are similar to displacements due to other types of development projects, many significant differences exist. One refers to the fact that when land taken for the project becomes a park and not a reservoir, road or coal mine, etc. it is still accessible for the displaced population. But each entry is now illegal. It can be prosecuted following the forestry laws, and sometimes puts even the life of the intruder at risk. Since it is unacceptable to expect that people base their livelihood on illegal activities, we considered this illegal utilization as a non-solution, as in fact is the basic intention of the park creators. The same is true when some settlements are left in the protected area temporarily, not yet physically uprooted but already dispossessed economically of rightful access to resources, and at risk of being also physically evicted any time. In some of the new parks in Gabon, not all settlements in the parks have been burned down and are still used, but in line with the forestry law, these settlements are illegal and should not be there

To our surprise and in contrast to the declared concept of collaborative management, none of the surveyed protected areas has adopted an official strategy to integrate local inhabitants into the park-management⁶, and only two parks (Korup National Park & Cross River National Park) have an explicit resettlement component to deal with resident and mobile people within the area designated to become a park. Thus, one could have assumed that in the other parks the dilemma biodiversity versus people did not occur, but this assumption would have been wrong. The Nouabalé Ndoki National Park in the Republic of Congo which has received wide recognition through National Geographic and the CNN Mega-transect, should serve as example: The park itself is permanently only inhabited only by American and British researchers and the entire population of the two permanent settlements within the 20 km support zone is employed by the Wildlife Conservation Society, which manages the park in collaboration with the Congolese park authorities. When Schmidt-Soltau visited this area first in 1999, he tried to find out why the indigenous Babenzélé population could not be found in the park. He learned that ‘they used to come in the past time and again, but that they are not allowed to enter the national park any longer’. It became clear that the ‘pygmy’ population was expelled from a territory considered by the Government and international experts as ‘no-man’s land’. No compensation or alternative strategy to secure their livelihood have been enacted, in law, in local decisions, or on the ground. A Government official dismissed this as an “issue”, labeling racially the area pygmies and declaring: “with our ‘speaking beef’ (the local racial nickname for the ‘pygmies’) we can do whatever we want”.

The Forest People Programme evaluation: “Indigenous peoples and protected areas”

“The case studies and the evaluation make clear that there remain a large number of government and conservation workers who do not believe that indigenous people such as the Pygmies have the right to pursue their traditional lifestyle, or even only certain aspects of it such as camping in the forest, collecting wild honey and hunting. Quite commonly such people assume that Pygmies do not have the right to determine their own lifestyle but rather should become farmers, herders and labourers. These assimilationist presumptions still guide most thinking by outsiders in relation to Pygmies. Most Pygmies in the regions visited expressed the desire to have a share in farming and animal husbandry, but they also want access to their traditional resources and the right to practice their traditional lifestyle.(...)”

In Rwanda, despite positive statements, there is very little evidence that conservation authorities have the intention of establishing participative or co-management regimes with indigenous people. This is principally due to the national government’s refusal to acknowledge the Batwa as an ethnic group and the indigenous people of Rwanda, but also to the general discrimination and marginalisation of the Batwa from mainstream Rwandan society. Being unable to name the Batwa in official discussions, policy documents or in planning the implementation of projects all make it likely that the dire situation of Rwanda’s indigenous peoples, and in particular that of evicted Batwa, will continue into the foreseeable future.

In the Kahuzi-Biega National Park in DR Congo the situation is quite different. Here project staff are struggling in a very difficult conflict situation to design solutions to the problems faced by Batwa evicted from the park. This represents a major step forward compared to what is happening in Rwanda. The evaluation was unable to examine these solutions in detail but they appeared to follow an assimilationist model that will provide Batwa with land to farm. Despite acceptance by the conservationists of the injustices experienced by these Batwa and a desire to correct this situation, relations between park authorities and the indigenous organisations claiming to represent the Batwa are characterised by rejection and quarrelling. There is as yet no agreement over how to correct or compensate evicted Batwa for the injustices they have suffered. Some considerable efforts to reconcile these differences will be required before constructive communication between the park authorities and indigenous organisations can begin.” (Lewis 2003: 8-9, FPP 2003, Kalimba 2001, Mutimana 2001).

⁶ Risby (2002a) and Few (2000) report similar situations in Uganda and Belize.

To avoid situations like that and to mitigate undesired impacts, safeguards like the World Bank Operational Policy on Involuntary Resettlement were developed (1980) and recently updated (2002) as OP 4.12. This policy is regarded as the best set of formal norms available, resulting from many painful lessons (Chatty & Colchester 2002). It covers among other cases ‘the involuntary taking of land ... and the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons’ (World Bank 2002, 2).

The IRR model, which is a theoretical cornerstone of the World Bank policy on involuntary resettlement, is our tool for analyzing the situation in the Central African rainforest and for deriving lessons and recommendations to reduce pauperization risks. In applying it, we will see that not all the risks identified in the general IRR model appear in this particular class of forest-displacements, which of course is how the dialectic of the general, the particular, and the individual always works. At the same time, this particular class of displacements may display specific risks additional to the general model. But it is important to regard the identified risks as a *system of risks*, as they are in real life, mutually inter-connected: those displaced people are compelled to face them as a *system of risks*, thus more difficult to struggle with.

The general picture that emerges is one that cannot be dismissed as an accidental situation (as one or another single case-study can) and therefore must be contended with as a scientifically established reality. Any remedy to be proposed for achieving biodiversity sustainability is therefore bound to account how it can deal with this established structure of risks. However, it is quite important to note that planners and managers tend to perceive risks differently than those people who are actually facing the risks of expulsion. Also, different people can be differently affected by the same impacts.

The function of social research within the multidisciplinary research on conservation is to concentrate in-depth on the socio-economic and cultural variables, the need for conservation and the behavioral responses, and the institutional solutions to the risks of displacement. In turn, the responsibility of conservation **policy** is to account for socio-economic variables as well and to incorporate institutional solutions to social risks.

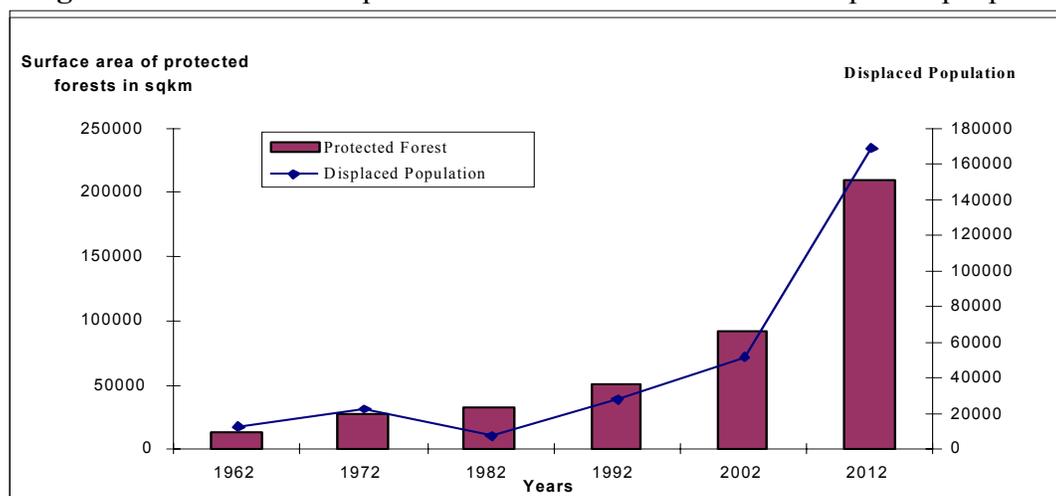
Before we focus below on each impoverishment risk in turn, it is also necessary to determine who is facing these risks and how many people in total are affected. The rural populations affected by park creation can be divided into people affected by direct land-access restrictions, -i.e., those who are *displaced* physically or economically- and the populations who own/use the land where the displaced people relocate – the ‘*hosts*’.

Only for two of the 12 cases studied census data are available. The total number of displaced people from the 12 parks surveyed is estimated to be over 54,000 individuals (table 2). Based on the overall average population density in the study region, we regard these figures as very conservative, and consider real numbers to be higher. With two exceptions, all the national parks studied have expelled the inhabitants without providing them new settlement areas. Therefore, the total number of people acting as hosts against their will is also difficult to assess. We have documented earlier that most likely the resettler-host ratio varies between 2:1 and 1:1 (Schmidt-Soltau 2002c). That

would mean that between 25,000 and 50,000 people in the study region are transformed into reluctant ‘hosts’. Forced displacement imposed by the state does not give any chance to say no: neither to the displaced, nor to the hosts.

While the data on the affected host populations are only a rough estimate, we calculated conservatively that between 190,000 and 250,000 people are affected adversely by conservation projects⁷ in the six case study countries in Central Africa. In turn, global assessment of displacement from national parks in rainforest areas concluded that millions of ‘conservation refugees’ have been displaced, or are facing physical displacement risks within next years (Geisler 2001).

Fig.1 The surface area of protected areas and the number of displaced people⁸



Forcing such a significant number of people to face impoverishment risks, demands that these risks be examined in more detail, one by one, and addressed with feasible counter-risk solutions. Cernea (2000) identified the general anatomy of this impoverishment process in light of a vast number of documented resettlement case studies, distinguishing eight major impoverishment risks:

- **Landlessness**
- **Joblessness**
- **Homelessness**
- **Marginalization**
- **Food insecurity**
- **Increased morbidity and mortality**
- **Loss of access to common property**
- **Social disarticulation**

We will proceed now to analyse the findings in the Congo basin applying this general risk model.

⁷ Our direct, hands-on empirical field research has covered 40 % of the total area under protection in the 6 countries. The extrapolation presumes that on average the proportions are roughly the same in the other protected areas with the same social impact.

⁸ **Source:** Size and displaced population: Extrapolated data from table 2 on the basis of the average population density date of park foundation: Sournia 1998; 2012 Projection on the basis of the average population density of the surveyed parks and COMIFAC 2002.

A) FACING THE RISK OF LANDLESSNESS

In the Central African rainforest, land embodies – beside its economic value as source of livelihood – a social dimension. Yet, even the economic aspect of land alone is daunting. Small hunter-gatherer bands can be in extreme cases the customary owner and user of ~1000 km² of first class primary forest, valued in million US \$ for timber only. But is this a real value or a hypothetical sum? They will never have a chance to cash this natural wealth, since all territories not utilized for agricultural production or officially demarcated as private property have been decreed to be government land.

Based on this legal pseudo-argument (contested by many in the legal and development communities) conservation projects in the region refuse to consider traditional land titles as land ownership and they reject all claims for a proper resettlement procedure. However, in profound contrast, the world's largest development agency, the World Bank, recommends a resettlement policy framework for all cases of displacement that recognizes customary land rights and 'ensures that the displaced persons are

- (i) informed about their options and rights pertaining to resettlement;
- (ii) consulted on, offered choices among, and provided with technically and economically feasible, resettlement alternatives; and
- (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.' (World Bank 2002, 3).

Following this argument, one has to ask: what are the 'full replacement costs' for unrecognized traditional land titles? The World Bank clarifies that (in addition to people who have a formal landholding title) also 'those who do not have formal legal title to land but have a customary right/entitlement to such land or assets, including those who have no recognizable legal right or claim to the land they are occupying, are entitled to receive at least resettlement assistance' (World Bank 2002, 6). Furthermore, the Bank recommends that if the displacement of indigenous people cannot be avoided, preference should be given to land-based resettlement strategies (World Bank 2002). What does that mean? Since there scarcely remains any unoccupied land, it is logical that the conservation projects will not be able to provide an adequate piece of land without almost similarly affecting the livelihood of other people. To be candid, one has to admit that it is impossible to compensate 'equally' in these cases. Without land to hunt, gather, or cultivate, the displaced indigenous groups become destitute, much poorer than they were before.

Based on many discussions with the managers of the surveyed parks, we realized that the conservation projects which refused to compensate indigenous forest dwellers in the sub-region did so because they thought recognition of traditional land titles would put an end to their resettlement schedules. Therefore, the illicit 'logic' of the projects is to refuse legal recognition to avoid endless discussions on compensating the un-commensurable (Terborgh and Peres 2002, van Schaik et al 2002). This, however, is highly dangerous for the conservation goals, disastrous for the well being of the rural and forest population, and counterproductive for any 'joint conservation' goal.

In what follows we assess the level of land losses incurred by the rural population due to conservation. Table 4 shows that the land loss between cases with an organized resettlement and those with an unorganized expulsion varied between 70 % and 90 %.

Table 4: Available data on land losses⁹

Name	Land before km ²	Affected Population	Density before (people/ km ²)	Density after (people/ km ²)	Increase in Density in %	Land after km ²	Land loss in km ²	Land loss in %
Korup NP (1)	1,259	1,465	1.16	3.94	339	372	887	70.5
Korup Hosts (1)	791	1,357	1.71	3.24	189	419	372	47.0
Dzanga-Ndoki (2)	1,220	350	0.25	2.7	1,080	130	1,090	89.4

The assessment of the value, which cannot be realized due to the creation of a national park (opportunity costs), can be seen as a method to establish an estimate of the ‘full replacement costs’, regarded as indispensable element for successful resettlement. The two values that constitute the opportunity costs are lost stumpage values and lost forest use. The lost forest use will be assessed under the risk of joblessness, since the forest is the only source of wage-income for the inhabitants of national parks. The lost stumpage value is associated with commercial clearing of timber in an alternative development scenario and is documented in table 5. These de-capitalizing losses resulting from national park creation are somehow shared between the resettlers and the hosts, and they are forced upon some of the poorest populations in our world.

Table 5: Loss of land and lost stumpage value of this land (in Euro)¹⁰

Name	Country	Total Area in km ²	Value of timber	per capita loss	GNP per capita
Dja Biodiversity Reserve	Cameroon	5,260	63,120,000	~ 8,000	1,703
Korup National Park	Cameroon	1,259	15,108,000	~ 10,000	1,703
Lake Lobeke National Park	Cameroon	2,180	26,160,000	~ 6,500	1,703
Boumba Beck National Park	Cameroon	2,380	28,560,000	~ 7,000	1,703
Dzanga-Ndoki National Park	CAR	1,220	14,640,000	~ 42,000	1,172
Nsoc National Park	Equ. Guinea	5,150	61,800,000	~ 6,000	15,073
Loango National Park	Gabon	1,550	18,600,000	~ 6,500	6,237
Moukalaba-Doudou National Park	Gabon	4,500	54,000,000	~ 6,700	6,237
Ipassa-Mingouli Biosphere Reserve	Gabon	100	1,200,000	~ 11,000	6,237
Cross-River NP Okwangwo Division	Nigeria	920	11,040,000	~ 4,000	896
Nouabalé Ndoki National Park	Rep. Congo	3,865	46,380,000	~ 8,000	825
Odzala National Park	Rep. Congo	13,000	156,000,000	~ 16,000	825
Total /Average		41,384	496.608.000	Ø 9,100	

Beyond legal arguments about customary tenure, it is nonetheless accepted that conservation projects must provide a ‘fair’ compensation, if they want to be successful, because they must not externalize the costs of establishing a conservation/protected area and take a ‘free ride’ at the expense of the area’s poorest populations. But neither conservation agencies, nor the governments, consider spending even one tenth of the value of what is denied to the displaced forest communities to compensate populations for their land and livelihood losses.

⁹ **Sources:** 1 = Estimate on the basis of the pilot village Schmidt-Soltau 2002c, 2 = Noss 2001:330.

¹⁰ **Sources:** GNP (2000) = UNDP 2002; 1\$ = 1 Euro. The estimate is based on the current average export prices of lumber products (Euro 120,-/m³) with non-labour inputs comprising Euro 60,-/m³ to bring the products to the export point (PC Mersmann). The average yield of commercial logging is 5 m³/ha (PC Mersmann & Götz). As said before the yield in the national parks would be significantly lower, but hardly below 2 m³. Based on these figures, the lost stumpage value would be Euro 120/ha = 12,000/ km². This is a very conservative estimate, if one compares it to other estimates. Carolin Tutin estimates, that the opportunity cost of maintaining forest parks in the Congo-basin as opposed to logging them costs US \$ 15,000,- per km² per year (Tutin 2002:81).

It is an important aim to make biodiversity conservation less costly. But the fact that conservation agencies and national governments are breaking the most widely accepted international standards for adequate compensation and sustainable resettlement/reconstruction in order to establish protected areas as cheap as possible is unacceptable.

Voice of a Baka displaced from the Dja biodiversity reserve:

“Our ancestors were hunters who lived from the forest. Our fathers told us to live in this forest and to use what we needed. When we see the forest we think ‘That is our forest’. But now we are told by the government, that it is not our forest. But we are hunters and need the forest for our lives. (...) Around 15 years ago, we were first told that Dja is a reserve. We were staying in one of our camps in the forest, when white men came to tell us that the forest is protected and that we can no longer live there. They told us to stop hunting and go to live in a Bantu village outside the forest. (...)

We had no choice, because they told us that they will beat and kill us, if they find us in the forest. They still treat us badly. We have no land, no food, nothing. We have to work on the farms of the Bantus or use the small plot the catholic mission has given us. Some young men still go to the forest and look for food (meat and plants) but this is very dangerous. If the game-guards catch them, they will take everything and beat them and ask the family to pay money. And these are even the lucky ones. They have killed many Baka from our area.”

Interview August 2003 with a family head in a Baka settlement (male, ~ 55 years, *kokoma* - traditional “leader”) (Mintom Sub-division, Cameroon). Translation Schmidt-Soltau.

B) FACING THE RISK OF JOBLESSNESS (LOSS OF INCOME AND SUBSISTENCE)

To measure income restoration and improvement for people resettled out of protected areas, it is necessary to assess the pre-displacement income. As is to be expected, those parks areas which have displaced the rural population without compensation and without an organized resettlement action plan did not collect data on the pre-displacement income in cash and kind that the displaced population was able to generate before the creation of the park. Therefore, our research has reconstructed a pre-conservation picture based on a livelihood survey in one of the remotest regions in Central Africa - the Takamanda forest reserve area (Schmidt-Soltau 2001). In contrast to its status as a “reserve”, no conservationists or state agents had penetrated this area before the survey.

Table 6 estimates the loss of cash income on the basis of an un-conserved area as outlined before. If one consider the fact that the inhabitants of the Central African rainforests generate 67 % of their total cash income – in total Euro 161 per capita (Schmidt-Soltau 2001) - from hunting and gathering, it becomes clear that we are talking about one of the poorest population in Africa and the world. These income losses have to be compensated, on top of the establishment of farmland, through alternative income generating activities, because in the resettlement areas hunting and gathering are prohibited by written laws. It is not the fault of the displaced population that they were living before the establishment of national parks in areas beyond the reach of the colonial or post-colonial states. Income losses which result from their incorporation into state territory have to be at least restored through an income restoration program. The World Bank’s policy goes further and defines as the objective in resettlement operations, that the ‘displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher’ (World Bank 2002: 1).

Table 6: Income Loss Estimates as Effects of Resettlement¹¹

Name	Total Area in km ²	Population	Estimated annual income loss from h + g in Euro		
			Per capita in cash	In cash	Total (4)
Dja Biodiversity Reserve	5,260	~ 7,800		544,596	956,103
Korup National Park	1,259	1,465	76.02 (1)	111,369	195,522
Lake Lobeke National Park	2,180	~ 4,000		279,280	490,309
Boumba Beck National Park	2,380	~ 4,000		279,280	490,309
Dzanga-Ndoki National Park	1,220	~ 350		24,437	42,902
Nsoc National Park	5,150	~ 10,000		698,200	1,225,772
Loango National Park	1,550	~ 2,800		195,496	343,216
Moukalaba-Doudou National P.	4,500	~ 8,000		558,560	980,618
Ipassa-Mingouli	100	~ 100		6,982	12,258
Cross-River NP Okwangwo	920	2,876	158.96 (2)	457,169	802,614
Nouabalé Ndoki National Park	3,865	~ 3,000		209,460	367,732
Odzala National Park	13,000	~ 9,800		684,236	1,201,257
Total /Average	41,384	~ 54,000	Extrapolation figure: 69.82 (3)	4,049,065	7,108,612

Conservation projects are aware that they have to offer realistic alternative forms of income generation to protect the parks, with genuine economic incentives. The idea to compensate the BaAka ‘pygmies’ in the Dzanga-Ndoki National Park and in the nearby Dzanga-Sangha Dense Forest Reserve (both Central African Republic) for their income losses (losses in hunting and gathering for subsistence and loss of land), through alternative income generating activities, such as farming, livestock breeding, eco-tourism etc., is well outlined in theory (Carroll 1992, Noss 2001), but is not translated in practice¹². But if one travels to Bayanga, one notices the miserable permanent plots of the Aka-settlements, where alcoholism and diseases are ruling (Sarno 1993). It becomes obvious that a change in lifestyle, which took other societies thousands of years, could not be implemented over night or even within one generation. The difficulties to introduce alternative income-generating activities as trade offs for the income losses caused by conservation also indicate that cash compensation is not an option for hunter-gatherers. Without long-lasting training programs and understandable realistic alternatives, it is unlikely that people displaced from national parks would be able to invest possible ‘cash-compensation’ wisely.

In turn, it is also obvious that tourism is not able to generate significant benefits¹³ and that not only in Africa. While there are a few positive examples of successful ecotourism projects, most of the time tourists do not generate enough income to cover even the management costs of the park and of the tourism infrastructure (Wunder 2000, 2003). Because of this, other solutions have to be found to either prevent the unacceptable income-impoverishment of the displaced people, or to stop displacing them for park creation. It is not up to the generosity of a conservation project to assist the former inhabitants of a park at their new location – it is a project responsibility.

¹¹ **Sources:** 1 = Schmidt-Soltau 2000; 2 = Schmidt-Soltau 2001; 3 = un-conserved forest in a remote location: Schmidt-Soltau 2001 4 = To move from this cash income to total income, one has to include the quantity of game and NTFPs, which are used for subsistence. The ratio between outtake for cash and outtake for subsistence was assessed to be 56.96 : 43.04 (Schmidt-Soltau 2001,2002b).

¹² For example, in many biodiversity conservation project designs eco-tourism is held up as a mantra for income generation. However, project very rarely provide sufficient economic analysis to back up ecotourism claims, devaluing the term to the level of rhetoric.

¹³ ‘It is highly unlikely that revenue from wildlife and/or tourism will ever constitute a particular large source of income for all members of a community at household and individual level.’ (Sullivan 1999: 10; see also Patel 1998, von Schaik et al 2002, Tutin 2002).

C) FACING THE RISK OF HOMELESSNESS

In the region under study this risk exists in a modified form, not in its primary meaning. Houses of semi-permanent and permanent settlements as well as huts of hunter-gatherers do hardly involve any cash expenditure and can be built without much effort anywhere else. We found, in most cases surveyed, that the people expelled from a national park erected new houses in the old style at their new plot. But habitations suitable for a hunter-gatherer lifestyle are not suitable for resident farmers. This results in a decreasing health situation and a decreasing acceptance of the resettlement process. For good reasons the World Bank recommends in its OP 4.12 that new communities of resettlers should receive housing, infrastructure, and social services comparable to those of the host population (World Bank 2002). Unfortunately, we have found empirical evidence that this is not happening.

D) FACING THE RISK OF MARGINALISATION

The risk of marginalization results directly from the instant loss of traditional rights and the status of park-displaced people and is also related to the geographical position of the new settlement area. When the new neighbors speak a similar language, belong to the same ethnic group or are even the same, the risk that the resettlers ‘spiral on a downward mobility path’ (Cernea 2000: 16) is relatively limited. The alienation and marginalization occurs especially in cases where the new resettlers end as strangers (without rights) among homogenous neighbors from a different cultural, social and economic background. All studied hunter-gatherer societies expelled from nature reserves do not function as independent groups but live in that strange ‘partnership’ with their settled Bantu neighbors, which some interpret as a slavery (Turnbull 1962) while others describe as an excellent intercultural partnership (Grinker 1994). Yet without an option to ‘disappear’ into the forests, the hunter-gatherers lose much of their economic and spiritual independence.

E) FACING THE RISK OF FOOD INSECURITY

This risk can be considered, fortunately, as virtually absent in the short run in displacements from national parks in Central Africa. In none of the research areas governmental services are able to fully implement their restrictive forestry laws. It is known for long that the dietary diversity among hunter-gatherers and incipient horticulturalists is higher than that of settled agriculturalists (Fleuret & Fleuret 1980; Dewey 1981; Flowers 1983; Cohen 1989; MacLean-Stearman 2000). In the long run, the lack of formal land titles and the denial of land use rights (discussed above) could also result in food insecurity for the resettlers, if those laws are implemented one day. The establishment of a legal title on a piece of land – big enough to provide a sustainable basis of livelihood – would help secure the food supply and reduce the risks to the environment resulting from overuse.

Another serious problem for farming activities arises from conservation itself. Around the Nouabalé Ndoki National Park the conservation project is forced to provide foodstuff from

outside on a subsidized rate to the inhabitants of the nearby villages, since the increase in the elephant population, due to conservation, undermines efforts to establish farms. At first glance this system, which both provides the rural population with food and secures the lives of protected species, seems to be acceptable. In the long run however, this system is uncertain, because nobody can guarantee that the food supply goes on forever. During the 1999 civil war in Congo, the WCS team had to leave the country. Since the villagers did receive neither donated food, nor had farms for subsistence, they had to re-start hunting for cash (to buy farm products) and for subsistence. They were still able to do so, since at that time the park only existed for a couple of years. But it seems obvious that the new generation, which does not have the skill to survive as hunter-gatherers is facing an increasing risk of food insecurity. Not only the un-sustainability of the conservation projects is risky for the rural population: the findings of Galvin (1992, Galvin et al. 1999) suggest that conservation policy affects the availability of resources to people living near the protected areas.¹⁴ This influences their nutritional status, especially of adults. While children tend to be better buffered from nutritional stress than adults, the rural population living near the protected area surveyed by Galvin et al. (1999) had a lower nutritional state than other people from the same ethnic background. Their agricultural yield was significantly lower (50 %; Galvin et al. 1999:4). The research literature insists that resettlements which are unable to achieve self-sufficiency have to be considered as failure. ‘Self-sufficiency is’ according to Rogge (1987:87) ‘used to denote the subsequent attainment of complete independence from any form of external help, when people are not only self-reliant in their food production but are able to generate all their own infrastructural needs and requirements, so that settlements are fully self-contained units.’

F) FACING THE RISK OF INCREASED MORBIDITY AND MORTALITY

Involuntary displacement and often violent displacement cause shock and increased propensity to diseases. (in other locations, in East Africa, loss of life and mortality effects were explicitly reported). A changed environment and exposure to a more frequent interaction with out-of-the-forest life always embody also multiple health risks (HIV, etc.). Research also has determined that a shift from foraging to farming may be accompanied by a decline in overall health (Cohen & Armelegos 1984). On the other hand, in all cases surveyed we found that the new settlements are closer to formal health services and facilities than the original habitations deep in the forest, which is a specific and positive risk reduction factor.

G) FACING THE RISK OF LOSS OF ACCESS TO COMMON PROPERTY

The specific characteristics of the Central African Rainforest modify this important and widespread impoverishment risks identified in the IRR model. In the rainforest context analyzed in this paper there is hardly a substantive difference between the risk of losing land (or forest-land), and thus becoming landless, and the risk to lose the access to the

¹⁴ ‘In the 70s the wildebeest population in Tanzania increased due to conservation activities from 240,000 to 1,600,000 and became the biggest challenge to the Maasai livelihoods’ (McCabe 1999: 12).

common property resources from the forest, since the forest in its total meaning is both the ‘individual’ and common property. Even among resident farmers only the user rights for ‘farm plots’ are held individually (by the ‘house’ or ‘household’), while all untransformed land is owned collectively. Apart from the few cultivated products on these house-plots, all other food products – roots and fruits, medicinal plants, fish from streams, etc.- come from the rich sources of the forest as common property.

Thus, separating and relocating resident communities out of the forest deprives them simultaneously of their ownership of the forest and of access to its resources as a common pool for all. This is not a potential ‘risk’ of impoverishment; it is real impoverishment through prohibition of access. What for other communities may be experienced as two distinct risks of impoverishment is, in this case, virtually one merged risk – a, fundamental process of deprivation of resources and de-capitalization, to which current park-establishment practice does not yet provide a remedy.

H) FACING THE RISK OF SOCIAL DISARTICULATION

Social disarticulation of uprooted resettled hunter-gatherer societies is not an impoverishment risk but an impoverishment fact. Politically weak communities are further dis-empowered by removal out of their habitat. ‘When technological change comes too fast and too soon for a society, it makes stable adaptations difficult if not impossible to achieve without severe pain, emotional stress, and conflict’ (Coelho & Stein 1980: 22) The forced change of lifestyle atomizes existing social links within the band and in its relation to others. The high prestige of the elders, resulting from their knowledge of the land, and the related social stratification have disappeared in all park-displacement cases we studied. The leading figures in the bands are now younger men, who have picked up some words of French or English and are able to express themselves in meetings with project staff. They are also the people who have the physical strength to explore their new environment and its opportunities, while the elders are staying behind complaining about the changes and the destruction of their world.

Social scientists suggest that a chance to mitigate the risks of social disarticulation could be the ‘re-establishment of shattered social geometries’ (Downing 1996:12), a concept that may become relevant in that the spatial redistribution patterns of residents evicted from their forest sites can either enhance or reduce their options for economic recovery. The actual practice of conservation-caused displacements reveals no effort by executing agencies to avoid or reduce the breakdown of the social fabric under the shock of displacement. In fact, there is not even an approved *code of procedures* as to how to conduct the logistics or relocation, or accepted standards for compensation. Compensation of losses is either simply not paid or is much below inflicted losses, illustrating the general deficiencies of compensation for displacements (Cernea, 2002b). Donors who finance park establishment do not provide investment resources for reconstructing the livelihoods of those displaced at the outside-the-park locations. Under-resourcing of resettlement is compounded by brutality during displacements, summary violent eviction, wanton destruction. Field accounts of physical violence abound; unnecessary pain is inflicted, and social disarticulation is often deliberately

pursued as a means to inhibit people's active resistance to displacement. In a project financed by the European Union donor in Uganda, for instance, local authorities decided to speed displacement by setting on fire the houses on the target families (Cernea and Guggenheim, 1996). One can hardly even bring up the notion of concern for social re-articulation in the context of such barbaric procedures.

At the arrival site, there is no conscious effort to pursue re-articulation or integration of the displaced forest residents into the communities settled outside the protected forest.¹⁵

Simple-minded local officials, and sometime even sophisticated researchers or international experts, often confuse the mere 'settling' of the conservation-refugees at the new location with instant 'local integration'. This certainly is not social re-articulation. Kibreab (1989) has de-constructed this 'confused interpretation' with respect directly to Africa. He convincingly critiqued the 'tendency among scholars and international agencies to use local settlement and local integration synonymously' and explained why 'local integration and local settlements are two separate conceptual categories with different substantive meaning' (Kibreab, 1989: 468)

IV. FINDINGS FROM PARK STUDIES IN EAST AFRICA

The forced displacement approach to protected areas creation has been used, of course, not only in the Central African areas analyzed above, but in many other regions. It is precisely the wide spread of such displacements, and the quasi-generality of their dire impoverishing consequences, that are, in our view, crucial issues of unacceptable policy, not just only of occasional unacceptable practice. These issues deserve very serious attention. It is urgent to re-examine the admissibility of such approaches and their available alternatives, and to find ways of erecting generally endorsed policy limits vis-à-vis continuing forced displacements.

An examination of the empirical evidence studied first-hand by other researchers and reported in the published literature – books, articles, Ph.D theses, etc.- leads to three conclusions relevant to this paper's argument:

- First, that forced displacements have been used widely to "cleanse" protected areas of people, rather than being confined to a few instances.
- Second, that their reported socio-economic impacts on the affected people reveal the same economic impoverishment characteristics that we highlighted above for the Congo basin cases, under the lens of the IRR model.
- Third, that such practices and their impoverishment-inducing effects occur largely *because* of a policy vacuum – the absence of a firm set of provisions *integral* to conservation policies that would prevent economic destitution, human rights

¹⁵ A distinct study about the 'mechanics' of displacement is under preparation. It synthesizes current practices, ranging from coercive displacement to some rare cases of better practices. Our overall findings show that many governments in developing countries tend to lack the capacity (institutional and financial), the legal frameworks, and the political will to carry out park displacement and resettlement in line with internationally recommended standards. This fundamentally undermines the objective of achieving double sustainability both for biodiversity and for livelihoods.

abuses, or violent forms of uprooting. The absence of policy strictures frees governments and various organizations from legal obligations of compensation, alternative land allocation, and protection of livelihood sustainability. Several cases from Uganda and Tanzania are outlined below and summarized in Table 7.

Risby (1997, 2002a,b) has conducted extensive field research within two protected areas in Uganda where involuntary resettlement has taken place. His 1997 research, focused on resource conflicts between Bairu inhabitants and Uganda Wildlife Authority, resulted in the temporary¹⁶ eviction of approximately 1000 “encroachers” from the disputed enclave of ‘Oburama’ in Katonga Game Reserve. This was not an orderly displacement by any measure. Rangers burned people’s lands, grain storages and homes in June 1996 and forcibly removed them from the Game Reserve. The effect of evictions was that the typical impoverishment risks became a dire reality: temporary landlessness, homelessness, food insecurity and increased morbidity (particularly among women and children) among the evicted community.

In another case, Risby (2002a,b) describes the eviction of 800 indigenous Banyabatumbi from Queen Elizabeth National Park in January 1983. The park authorities removed the communities (who had been permitted to live within the park since its establishment in 1952) because they believed their livelihood practices (river fishing and shifting cultivation) disturbed large game populations. Here too, the park authorities burnt people’s homes and moved them in trucks, dumping them at the park boundary.

The Story of an Evicted Family

Harriet Maguru recounted the day of the eviction in an interview conducted in February 1999: “*Two rangers with guns arrived at my house at about 9 in the morning. My husband was away from the village. I was cooking and just about to go to fetch water from the river [Ntungwe]. They said ‘Stop cooking and don’t fetch water: pack your stuff because you are leaving right now’. There were other rangers around doing the same with people in the neighbouring houses and I could see more of them across the river, by Nyamushasha.*

The Assistant Park Warden Bisungwa was talking in a radio and there was an aeroplane flying low above us. The Head Ranger in charge of Rwenshama, Hammadah Dungu, was ordering his men to burn all the houses. Later on I was told that the Chief Park Warden Ssali was in the plane, giving orders to the men on the ground by radio.

There was no time. I grabbed all that I could from the house but in less than one hour the rangers ordered me to follow them. There was a lot of confusion. I picked up one of my children on the way, but I could not see the second around. I found him only later on. They told us to walk to the road work station in Kikarara, 6 miles away along a path through the Park, and gather there. Then they started to set fire to the village. I could see from the smoke that the same was happening in Nyamushasha. That was the last time I saw my house.”

(Translated by Innocent Kahwa (research assistant to Dr. Lee Alexander Risby 1998 – 2000))

The Banyabatumbi were subsequently resettled in the predominantly Bakiga fishing village of Rwenshama (another village inside Queen Elizabeth National Park). However, they were allotted less than 1 sq km of land, separate from the Bakiga

¹⁶ In an unusual turn of events, the leaders of the displaced Basin people succeeded in submitting a petition of protest to Uganda’s President Museveni, who temporarily allowed the Bairu to re-occupy Oburama in August 1996 pending settlement of the dispute.

settlement, and given no access to fishing of the Lake Edward. No compensation was paid either. Since the eviction the livelihood of the Banyabatumbi has been transformed from secure to insecure. The eviction condemned them to landlessness, joblessness, homelessness, and to cultural/economic marginalization imposed by the surrounding Bakiga communities, to food insecurity due to the inability to legally fish, increase in morbidity due to food insecurity, and loss of access to their ancestral lands (Risby, 2002a,b).

Feeney's monograph on "Accountable Aid" (1998) reports the most detailed research and analysis to date of the violent displacement of about 30.000 people orchestrated by local authorities from Uganda's from the Kibale Game Corridor¹⁷ and Forest Reserve under a project sponsored by the European Commission. That monograph, together with other studies, describe in detail how the European Development Fund (EDF) funded the eviction of tens of thousands of Bakiga and Batoro people in 1992 without consultation or compensation, so it could be incorporated into Kibale Forest National Park. This action substantially disrupted local livelihoods, caused loss of land, homelessness, food insecurity, loss of lives, and increase in morbidity on a large scale (see Table 7). Feeney reported that the EDF Chief Technical Advisor after this 'brutal eviction, expressed his satisfaction (verbatim) that "this *successful operation...has opened up the possibility of the frustrated elephant population of Kibale once more being free to migrate between the Queen Elizabeth National Park and the forest.*" (Feeney, 1993:4)

Table 7: Examples of involuntary displacement from Uganda and Tanzania

Park / Country	Area (sqkm)	Year of Est.	Population Displaced and Year	Violence Used	Compensation Paid	Replacement Land Given	Non-displaced still resident in Park
Queen Elizabeth NP(Uganda) ¹⁸	2000	1952	800 (1983)	Yes	No	Minimal	No
Katonga Game Reserve(Uganda) ¹⁹	250	1964	1000 (1996)	Yes	No	No (pending)	No
Kibale National Park (Uganda) ²⁰	750	1993	30000 (1993)	Yes	No	To some only	No
Mkomazi Game Reserve(Tanzania) ²¹	2000	1951	1000 (approx) (1988)	Yes	No	No	No

Although in Asia the circumstances are in some respect different, we note also comparable empirical evidence and social analyses (Gadgil and Guha, 1994; Guha, 1997) regarding people uprooting and dispossession from wildlife sanctuaries. The cumulated numbers of affected people are very large. As Colchester (1997), Guha (1991) and other researchers are repeatedly pointing out, the indigenous groups and vulnerable ethnic minorities are the primary victims. "It is to be hoped that simply

¹⁷ Kibale Game Corridor was classed as a Game Reserve. An USAID (1990) survey, which noted that people began cultivating inside the Corridor in the 1950s and 60s, advised against eviction as impractical and recommended degazettement as the best option. However, the UNP and EU-EDF went ahead with the eviction.

¹⁸ Source Risby (2002a,b)

¹⁹ Source Risby (1997)

²⁰ Source Feeney (1993, 1998)

²¹ Source Brockington (2002).

counting the number of people victimized by well-intentioned but ill-advised conservationists might spur greater accountability for this form of place-making” (Geisler, 2003)

V. Facing new risks to biodiversity: How the displacements backfire

To sum up, we established above that the *system of impoverishment risks* inflicted on ‘conservation refugees’ indeed makes this most vulnerable category of forest-dwellers – one of the world’s poorest – even more poor and destitute through forced displacement. This, we believe, is indisputably obvious from the analysis of direct field evidence, and from the secondary analysis of much more additional empirical evidence available in the scientific literature about other sites in Africa, Asia and Latin America.

But this specific risk analysis would be incomplete if we would not stress also that in this case the risks imposed on people, and their outcomes, entail in turn an (although unanticipated) risk to the biodiversity itself (Marquardt, 1994). Such an outcome is not envisaged by those who promote displacement as solution, but it is nonetheless real, and should give more pause to such promoters. In short, socially irresponsible and often unnecessary displacements backfire.

In our full study we have also outlined the various biological risks resulting from the displacement of people out of national parks, not only from their presence in the park. We can only point hereto this issue, signaled by other researchers as well, without detailed elaboration, and we suggest this issue for open-floor discussion. We are aware that not all these risks arise in all parts of the world

Displacement often forces hunter-gatherers to become in principle cultivators-farmers. But as their sedentarization becomes a fact it has certain negative impacts on other segments of the environment: it has been documented for East Africa, for instance, that ‘the expansion of national parks, game reserves and protected habitats - freed from human presence- has generally been accompanied by a decline of wildlife’ (Galaty 1999:1). In our research region, both conservationists and informants from among the rural population explained this decline as a by-product of the increasing involvement of the rural population into the market economy. Displaced hunters in Gabon, for instance, have now increased incentives to intensify hunting by re-infiltrating into areas they knew, wherefrom they were evicted.

In turn, on the basis of several case studies in South Africa, Fabricius and de Wet concluded that ‘the main negative conservation impacts of forced removals from protected areas are that they contribute to unsustainable resource use outside the protected areas, because of increased pressure on natural resources in areas already degraded due to over-population. People’s expulsion from biodiversity-rich areas makes their attitudes vis-à-vis conservation and conservationists increasingly negative, with measurable increase in poaching and unprecedented incidents of natural resources being vandalized, often accompanied by land invasions’ (Fabricius & de Wet 2002: 152). And it is repeatedly noted that displacements result in environmental degradation through an increase of permanent settlements (Colchester 1997), soil erosion tends to be higher in permanently used agricultural plots than under shifting cultivation regimes (Duncan & McElwee 1999). The increased social

stratification induced through displacement has in turn biological implications because it leads to more intense harvesting and extraction of forest resources. In a more or less egalitarian society, most people do not utilize the resources for anything besides their daily needs. An increasing social stratification results in the capitalization of resource, precipitates capital accumulation, and values the indicators of status and prestige (Fratkin et al. 1999). In turn, Turton (2002) concludes that displacement from national parks ‘will alienate the local population from conservation objectives and thus require an ever increasing and, in the long run, unsustainable level of investment in policing activities’.

The customary tenure of certain resident forest groups over certain portions of the forest, acts as an in built protective shield over flora and fauna resources against other local and outside groups that might encroach and overuse. The presence of those resident groups on the ground has been often quite an effective deterrent. Eviction of resident people eliminates the customary protector, and it is doubtful whether ‘the state’ can be as effective against other users, local or remote (commercial interests). The risk exist that some ‘protected’ areas may de facto slide into a status of ‘open access’ areas, a threat present always when former social arrangements break down (Bromley and Cernea, 1989). ‘There is empirical evidence in which the disruption of the traditional arrangements that had protected and regulated the use of common property resources – either by land reform or by extension of state ownership over previous ‘common’ resources – have led to the overexploitation of such resources because of their de facto conversion into open access’ (Kibreab 1991: 20). Indeed, the bio-monitoring of several unprotected areas has documented (Bennett & Robinson 2000) the conclusion that ‘traditional’ conservation methods of rotation of harvest zones can be a more effective method of conservation of endangered key-species than the creation of unmanaged wildernesses.

In sum, we point to the research findings that signal that the consequences of the displacement and resettlement process itself have in turn a set of degrading effects on forest ecosystems. We term these as a ‘second generation’ of degrading effects, considering that the presence of residents in parks is causing, under certain circumstances, the ‘first generation’ of such effects. Trade-offs must therefore be weighted between the cost of efforts to contain the ‘first generation’ without resorting to displacement and the costs of the ‘second generation’ effects, if displacement policies are implemented. Evidence about ‘second generation’ effects is present also in publications on other ecosystems (Fabricius & de Wet 2002, Black 1998, Kibreab 1996, Burbridge et al 1988).

Based on our preliminary examination of the biological impacts of resettlements from parks in Central Africa, we found that conservation and state agencies did underestimate the ‘second generation’ biological impacts. It seems therefore reasonable to strongly recommend that all future conservation projects predicated on displacement provide donors and all stakeholders with a detailed ex-ante assessment of both the impoverishment risks on people and the biological ‘risks’ of displacement as conservation strategy.

VI. Are Remedies to Forced Displacement Feasible?

Research holds that the creation of national parks without an equitable and sustainable livelihood alternative to the expelled local population – results in a lose-lose situation (Cernea 1985, 1997). The common practice to do nothing represents the path of least resistance, and leaves without any assistance and guidance people who lived and/or utilized these areas as source of livelihood before the arrival of the conservation project (Schmidt-Soltau 2002a) and is the worst possible option from the perspective of biodiversity conservation (Terborgh and Peres 2002).

It must be also stated that policies to expropriate rural populations without compensations and prior consultations, planning and informed consent seem to violate several international laws and conventions. The *ILO Convention 169* relates to the forced displacement of indigenous groups and it specifically addresses this issue. Unfortunately, **no African state has ratified this convention**. In addition, one can hardly ignore the fact that all but two of the nine national parks surveyed violate the Article 21 of the *African Charter on Human and Peoples' Rights*, adopted on 27 June 1981 by the Assembly of Heads of States and Government of the Organization of African Unity, which guaranties 'all peoples a freely dispose of their wealth and natural resources' (Schmidt-Soltau 2003). In turn, the World Bank's policy standards for involuntary displacement have been adopted in one way or the other by all OECD countries and most multi-lateral donors, but they are also usually transgressed in practice in park projects.

This paper has emphasized the risks of biodiversity loss and the risks and realities of impoverishment involved in the involuntary displacement and resettlement of inhabitants from national parks in Central Africa. The paper has also stressed that some of these risks can somehow be mitigated. One can discuss the recommended rehabilitation measurements. But all participants in the discussion have to recognize that all national parks in Central Africa have involuntarily displaced or are forcibly displacing people, and that this had resulted on the ground in unacceptable impoverishment and violence. All stakeholders have to recognize that these displacements are – by scientific and legal standards - *involuntary* resettlements. The determination of whether a resettlement is voluntary or involuntary is not related to the existence of legal titles of landownership, but to the fundamental question: do the resettlers have the option to stay, or not? In none of the cases we studied did the inhabitants of protected areas have the option to remain in place if the authorities decided to displace them, so called 'consultations' notwithstanding.

Government officials implementing forced displacement for park creation sometime openly argue that the costs involved in resettling inhabitants of national parks according to socially sound guidelines (e.g. World Bank 2002, OECD 1992, ADB 2002) would be too high. This argument aims at justifying and perpetuating the current practice of externalizing the cost of park creation upon one of the poorest segment of the developing societies, namely the displaced and uncompensated park residents. But is it acceptable for conservation-minded developed and developing countries, on moral and

economic standards, to free ride on the ‘underdeveloped’, ‘underprivileged’, ‘underrepresented’ inhabitants of the Central-African rainforest?

Involuntary displacement processes are unfortunately carried out many times at unacceptable standards in other development sectors as well, yet this is not an excuse for justifying unacceptable standards in conservation programmes. In the current context, the forest sector or the protected reserves are not singled out for the critique of displacement. This critique is much broader, yet it appears that in conservation programs the lack of any policy, capacity, and financing for post-displacement reconstruction causes much worse effects than in other sectors. Wherever displacement is disastrous to the point of destroying people's livelihood and trampling on their human rights, it should not be done even in the traditional development sectors like hydropower dams (see the IUCN-sponsored report of the WCD), highways, urban infrastructure, etc. Displacement from parks is carried out mostly (even if not in every single case) at very low standards; in most developing countries resettlement legal frameworks and policies are absent, and absence of policy invites and facilitates abuse and unaccountability. The remoteness of park areas tends to camouflage violence and lack of compensation from the public eye and scrutiny. The silence of some well-intentioned promoters of parks is very unhelpful, tolerates the intolerable, and must be replaced by a clear and principled position of opposing and preempting such forced and violent displacements. If resettlement would be feasible in park situations at standards which would consistently ensure decent relocation, equitable compensation and sustainable reconstruction of people's livelihood, it could be used when other approaches are not available (although community based conservation holds great promise and should be given priority). But as long as these basic conditions are not met, and are not likely to be met, it is contrary to stated donors' and NGOs' policies, to poverty reduction goals, and to ethics, to continue displacing and impoverishing weak and vulnerable populations.

For the inhabitants of natural parks the principles of sustainability are not the question in dispute. Their fairly asked question is whether the costs and benefits of preservation are equally shared. The benefits are global, but the costs are mostly local, and are paid by the poorest, most vulnerable groups. Beside the indigenous inhabitants of national parks, no other population is forced to change its lifestyles for the ‘survival of mankind’ and start a new life from scratches. Yet the claim and grievances of those who *are forced to do so*, their legitimate requests to share in the benefits of development, remain unanswered. To avoid lose-lose situations it is necessary to secure both the well being of the people and the conservation of the rainforest ecosystem.

There is no easy answer – one size fits all – about how the risks of impoverishment can be reduced. But acknowledging these risks arising from the biodiversity conservation could at least make all stakeholders aware of them and prompt alternative actions and approaches. Forced displacements out of parks and reserve forests have been for decades a mainstream “remedy”, albeit a “remedy” which didn’t really solve the social problems, but created new impoverishment. Forestry Departments have embraced and practiced displacements with irresponsible abandon. They have traveled the way to this

flawed remedy again and again routinely, because it has been easy to exploit the quasi-total political weakness of remote, uneducated, unorganized, poor, indigenous populations, much easier than to institute and financially support a good management system. But displacements have spectacularly failed, time and time again, to achieve the balanced solution to the sustainability objectives under whose flag they were advocated. Not only is their total failure documented by a mountain of evidence, but they have been proven to create a host of additional huge social, political and economic problems – ranging from impoverishment disasters and infringements of basic human rights to new adverse environmental effects.

If this evidence, at least for Central Africa, is taken into account, there are two possible answers to the questions we raised about current displacement strategies:

First, to continue using population resettlement as a means for conservation park establishment would require ensuring that the international standards for responsible resettlement (e.g., as set up by agencies such as the World Bank, ADB, and OECD countries' aid agencies; the African Development Bank has also gone recently through the process of strengthening its resettlement policy guidelines along those of the World Bank) be fully implemented and monitored by national governments, donor governments, or sponsoring international NGOs. That would require, as a premise, the adaptation of explicit country policies and legal frameworks guaranteeing the rights of those displaced and their entitlements to reconstructed livelihoods. Only if the livelihood of the affected population is protected and demonstrably improved, rather than worsened, could resettlement be defended rather than banished, as an acceptable means for conservation purposes. *Global* benefits from park creation must be predicated on *local* benefits for the displaced communities. Pursuing this route would imply also remedial and retrofitting actions (as has been done in some World Bank projects that entailed involuntary resettlement) in parks where livelihood issues fell far short of such standards. Is this course of action likely?

Unfortunately, objective assessments indicate that strategic prerequisites for this to take place are most often missing. Such prerequisites, at a minimum, are: political will, expressed in adopting national policies and legal frameworks for resettlement; adequate financing; and organizational/institutional capacity for creating alternative opportunities and fostering resettlers' participation (World Bank, 1996: 183-186; OECD, 1992). From past and current experiences we conclude that, realistically, such prerequisites could be hardly built in a short time, at least in the Central African countries we studied.

Therefore, if this conclusion is correct, the second answer is that the forced eviction from parks must be openly and explicitly questioned, side-lined and dropped as a regular policy. Continuing to rely on them can only signify tolerance and acceptance of the same type of outcomes as this approach has produced so far, and this paper has analyzed. Perhaps a caveat to such explicit rejection needs to be made for *exceptional* cases, subject to rigorously defined assessments and legal procedures. Caveated exceptions could be accepted in exceptional situations, if they would also reinforce the general rule. Solid scientific evidence and poverty reduction policy reasons together firmly call now for de-mainstreaming the displacement strategy in the parks and forestry sector, because of

- a) its own intrinsic flaws and failures; and
- b) because it inherently conflicts with poverty reduction policy goals. Biodiversity conservation predicated on forced displacement does not reduce poverty. It causes additional impoverishment.

The constructive recommendations that result from our analysis are obvious. The most positive step forward for national governments which contemplate the establishment of protected areas is to adopt explicit policy and legal frameworks that would link biodiversity sustainability to livelihood improvement and sustainability, and would rule out forced displacements which impoverish people. The major international NGO concerned with conservation, like IUCN, WWF and others, could help enormously by distancing themselves unambiguously from displacement approaches that impoverish people and by issuing formal park conservation policies that are explicitly pro-poor and chart the way to balancing livelihood and biosphere sustainability. It is our conviction that for new and sustainable solutions to evolve and succeed, research on rainforests must be expanded for *'solutions able to attain a workable mix of conservation and development at large spatial scale'* (CIFOR 2002).

The call is now not only upon agro-biological research, but also on economic, social, and management sciences to intervene. The commandment to search for pro-poor solutions that help improve livelihoods, rather than impoverishing poor people further, must reorient the research enterprise on conserving biodiversity in parks and forests with a new definition of its complex objectives: objectives for conservation practice, integrated with the objectives of improving people's livelihoods.

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