

# **Biodiversity Conservation versus Population Resettlement: Risks to Nature and Risks to People**

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### Abstract

Is the dilemma between biodiversity conservation and poverty reduction insoluble? This dilemma directly arises in park creation programs, when the intended park areas are inhabited by poor indigenous populations. The “solution” seems to be cast in either or terms, with a long entrenched bias against resident or mobile people in parks. Typically, the kind of intervention recommended and implemented is the forced displacement of these people. For CGIAR, it is imperative to confront this dilemma through integrated social and biological research apt to lead to socially responsible 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 9 detailed park case-studies carried out in 6 countries of the Congo-basin ecosystem of Central Africa. 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 9 case studies reported, we found that the strategy to conserve biodiversity through national parks has displaced over 51,000 very poor park residents, transforming them into conservation-refugees, and has negatively affected additional 50-100,000 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: 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 violently uprooted from their habitat and not resettled with respect to the concept of “double sustainability”; 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 the authors' argument.

The authors argue that the correct understanding of the impoverishment risks to people is a *sine qua non* pre-requisite 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, the central goal of CGIAR agro-biological research for conservation and development. The authors’ analysis of forced displacements found that such displacements **cannot** be counted upon as a genuine solution.

Summing up decades of experiences with displacement as a mainstream approach, the authors 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, the authors recommend a change in intervention policies: 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, the paper argues for poverty reduction and social sustainability for the conservation-refugees, and for applying reconstructive strategies in order to secure displaced peoples’ livelihood and development, while protecting 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 effectiveness of **means** is under scrutiny.

This paper takes a firm position in support of conservation and analyzes empirical findings that question some of the means for achieving it. The paper focuses on population displacement processes as a strategic approach to park creation. It examines the outcomes, benefits, and risks of this approach, and proposes several research-based recommendations. Since the present paper is a shortened version of a longer study (available for those interested), we bring up for discussion only some aspects, specifically:

- First, the paper presents a theoretical framework to analyze the anatomy of impoverishment risks of displacements from parks and forests.
- Second, it reports and analyses recent empirical findings on displacements of indigenous groups from 9 parks in Central Africa, compared with research in other parts of the world.
- Third, it briefly reviews options, practiced or proposed, for alternative solutions in the search for a better balance between biodiversity and social sustainability, and derives conclusions on displacements and on future interdisciplinary 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 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 concerns. This has resulted in a perceivable lingering imbalance in the public discourse about the two sides of the dilemma with the social side of the discourse left insufficiently linked to the systematic economic, cultural and legal analysis, statistical evidence and generalized 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 (people) 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).

Research faces today the 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. This international conference needs to discuss and hopefully adopt the notion of ‘double sustainability’. This is in fact contained in the wording of our conference’s theme, as a ‘*Conference on Rural Livelihoods, Forests and Biodiversity*’.

CGIAR has adopted in 2000 a new research strategy that defines ‘the reduction of poverty’ as the central and ultimate objective of scientific research in agriculture, forestry, and NRM. This signifies that research on biodiversity and forests must aim at finding *integrated* solutions for conservation, poverty reduction and improved livelihood, rather than pursuing such objectives separately. The ‘Challenge Program’ for research on rainforests, submitted by CIFOR for CGIAR’s approval and support, defines very well this integrated pursuit of two-fold sustainability as follows:

‘**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 – our italics; MMC & KSS).

The deeply novel element in the orientation of this research program is that it places the poverty issues, not only the biological and other technical issues, on the agro-forestry research map. This is why population displacements for biodiversity reasons and co-management patterns must be addressed explicitly through social research for biodiversity conservation and NRM. The important principle embedded in this program 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 don’t reduce poverty would be unacceptable as means for preserving biodiversity. This is **fundamentally relevant** to the argument we develop in the present paper.

We will examine further population displacement as a ‘means’ for protecting biodiversity in 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, 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 vast increase of biodiversity conservation efforts through alternative means of improved co-management approaches.

One example epitomizes this situation: 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.

During implementation, however, the Bank's regular supervision mission had to constantly oppose the attempts of the Ministry to 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. 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. 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).

Country	Total Area km <sup>2</sup>	Original Tropical Forest in km <sup>2</sup>	Remaining Tropical Forest (1992) km <sup>2</sup>	Forest Loss (%)	Remaining wildlife habitat (1995) km <sup>2</sup>	Habitat loss (%)	Protected Forest (1994) km <sup>2</sup>	Protected Forest (2002) km <sup>2</sup>	Protected Forests (2002) (% of remaining forest)	Population Density (1995) people/km <sup>2</sup>
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	Ø 60	1,055,000	Ø 60	51,056	92,035	13.1	Ø 50.2

**Table 1:** Deforestation and protection measurements in the Congo basin countries<sup>3</sup>

The question is whether this extension of protected areas again predicated on forced displacement and further impoverishment of resident and mobile people living in these areas. This legitimate question is triggered by the indisputable fact, that on the other side of our vexing dilemma, the social sustainability side, the picture is much bleaker. The common characteristic in the establishment of the vast majority of parks or biodiversity reserve areas 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.

<sup>3</sup> **Source:** Naughton-Treves & Weber 2001: 31-33; Perrings 2000: 14; Data 2002: COMIFAC 2002.

We are, therefore, of the view that there is a need for a broader theoretical and empirical synthesis to the issues of forcibly uprooting residents and of to-be-protected areas.

About a decade ago, Brechin et al., while strongly emphasizing the need for conservation, also expressed justified alarm about the little understanding of social impacts of irresponsible displacements. They emphasized that ‘cumulated effects’ need to be countered. They asked for a theoretical model to anticipate such cumulated effects 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 common (or other social organization) differs widely from case to case; to date, no model exists to predict the cumulative effect... The concern is the negative effects it can have on the rural poor... In addition to concerns of human rights, conservation 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’ (Brechin 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 other 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* made a landmark call for the study of the ‘victims of conservation’ (Chatty & Colchester, 2002). Nevertheless and despite all requests, satisfying 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 ongoing requests for a ‘cumulative model’, as well as in response to other related 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 Impoverished Risks and of Reconstruction (IRR) was first used on a large scale in a World Bank analysis of some 200 of its development projects (World Bank 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, environmentalists a.o. during the last three decades in many countries. Theoretically, it builds on the new state-of-the-art of resettlement research and of poverty-related research. The IRR model has been tested and applied in a number of studies, including in the World Commission of Dam’s report (WCD 2001), in an all-India monograph on population displacement (Mahapatra, 1999) in numerous studies of displacements in the irrigation and mining sector (Downing, 2002), etc. and is used now by some major development agencies (ADB, the World Bank) and in many operational resettlement planning and activities.

A first systematic study of the impoverishment effects of indigenous population displacement from national parks on the basis of the IRR model was carried out in 9 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 private project visits. Some of the principal findings of the analyses (understandably, not all) are provided in this paper.

Name (1)	Country	Promoter (2)	Total Area in km <sup>2</sup> (3)	Impact on local populace (4)	Population (5)	Compensation (6)	Success? (7)
Korup NP	Cameroon	WWF	1,259	Involuntary resettlement of villages Expropriation	1,465	Yes No	No No
Lake Lobeke NP	Cameroon	WWF	4,000	Expulsion of Pygmy-bands 'Expropriation	~ 8,000	No Partly	No No
Dzanga- Ndoki NP	CAR	WWF	1,220	Expulsion of Pygmy-bands Expropriation	350	No Partly	No No
Nsoc NP	Equatorial Guinea	ECOFAC	5,150	Expulsion of settlements Expropriation	10,197	No No	No No
Gamba	Gabon	WWF	7,000	Expulsion of settlements Expropriation	~ 12,600	Partly Partly	No No
Ipassa- Mingouli	Gabon	ECOFAC	100	Expulsion of Pygmy-bands Expropriation	110	No Partly	No No
Cross-River Okwangwo Div.	Nigeria	WWF	920	Involuntary resettlement of villages Expropriation	2,876	Yes No	Has not started
Noubale Ndoki NP	Republic of Congo	WCS	3,865	Expulsion of Pygmy-bands Expropriation	~ 5,802	No Yes	No Yes
Odzala NP	Republic of Congo	ECOFAC	13,000	Expulsion of Pygmy-bands Expropriation	9,750	No No	No No
Total			36,514		51,150		

**Tab.2.** List of the protected areas covered in this study<sup>4</sup>

To our surprise and in contrast to the declared concept of collaborative management, none of the surveyed protected areas had adopted an official strategy to integrate local inhabitants into the park-management, but 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. So 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 Noubale Ndoki National Park in the Republic of

<sup>4</sup> **Sources and definition:** 1= Some NP (National Parks) have not yet a clear defined name (c.f. Nsoc National Park, Gamba protected area complex is also called Setté-Cama – Sournia 1998: 110). 2= A 'Promoter' is an organization which appealed to and assisted the national government in the implementation of the specific national park. 3= See Schmidt-Soltau 2002c. 4 = While 'involuntary resettlement' is an organized approach in which the local population receives assistants through the national government and/or the promoter, is an 'expulsion' a displacement without assistants. A village or settlement 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 bases. 'Expropriation' addresses cases in which the national government or the promoter did not consider common law rights - such as traditional land use titles - as legal title. 5= The data are carefully extracted and developed from various sources in: Schmidt-Soltau 2002c: 4) 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 instruments (according to the 'best practice' of the World Bank = livelihood restoration), which are offered to the res ettlers. A partly compensation is in that logic related to one or two of these items, but does not offer the full array of assistance.

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 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. But, 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 formal decisions, or on the ground. A Government official dismissed the issue, labeling racially the area pygmies and saying: “with our ‘speaking beef’ (the local racial nickname for the ‘pygmies’) we can do whatever we want”.

To avoid situations like that and to mitigate undesired impacts, safeguards like the World Bank Operational Policy on Involuntary Resettlement (OP 4.12, World Bank 2002) were developed. The OP 4.12, which is said to be the best set of formal norms available, results 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 the theoretical background 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. We shall also 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 reality, mutually inter-connected, which the displaced people are compelled to face as a *system of risks*, thus more difficult to fight. 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.

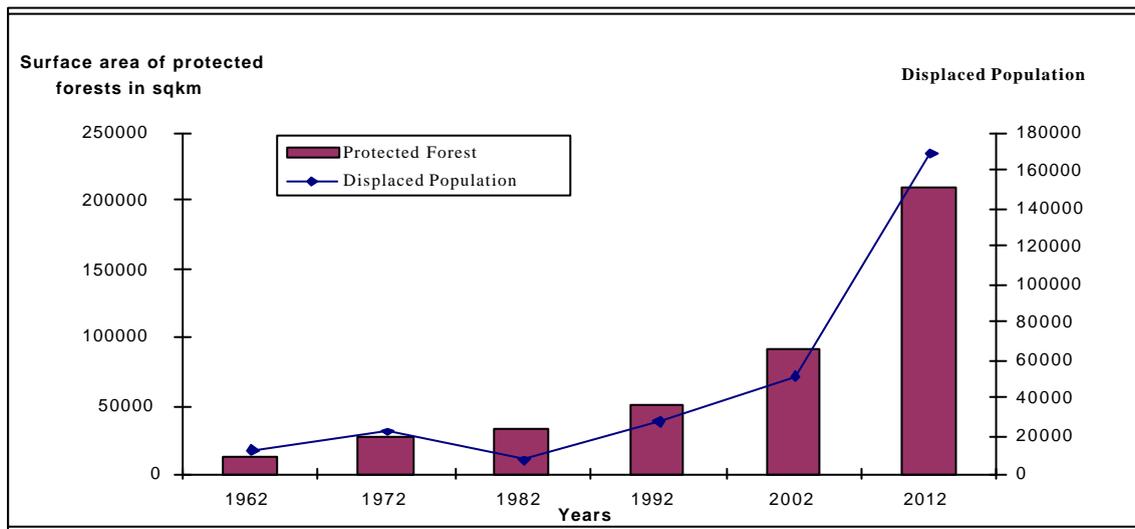
In this light, it is quite important to note that planners and managers tend to perceive risks differently than those people who are actually facing the risks of expulsion and relocation. Also, different people can be differently affected by the same impacts. The function of social research within the multidisciplinary research on conservation is to concentrate in-depth on the socio-economic and cultural variables, the behavioral responses, and the institutional solutions to these risks of displacement.

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 those people actually

displaced – the ‘resettlers’ (those within a resettlement scheme) and the populations who own/use the land where the displaced people relocate – the ‘hosts’.

Only for two of the 9 cases studied census data are available. The total number of displaced people from the 9 parks surveyed is estimated to be over 51,000 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 much 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 does not allow 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 projects<sup>5</sup> 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 displacement risks within the next few years (Geisler 2001).



**Fig.1** The surface area of protected areas and the number of displaced people<sup>6</sup>

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

<sup>5</sup> 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.

<sup>6</sup> **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.

process by analyzing and synthesizing a vast number of documented resettlement case studies showing that it consists of 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 in the light of this general risk model.

#### **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 km<sup>2</sup> 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 takes that into consideration by clarifying 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). 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 was no unoccupied land in the first place, 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 park managers, 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. It is obviously impossible to refund the 'losses' of the inhabitants 'equally' either in cash or in kind. 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 is highly dangerous and disastrous: 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 %.

Name	Land before km <sup>2</sup>	Affected Population	Density before (people/ km <sup>2</sup> )	Density after (people/ km <sup>2</sup> )	Increase in Density in %	Land after km <sup>2</sup>	Land loss in km <sup>2</sup>	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
DzangaNdoki (2)	1,220	350	0.25	2.7	1080	130	1090	89.4

**Table 4:** Available data on land losses<sup>7</sup>

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.

Name	Country	Total Area in km <sup>2</sup>	Value of timber	per capita loss	GNP per capita
Korup National Park	Cameroon	1,259	15,108,000	10,313	1,703
Lake Lobeke National Park	Cameroon	4,000	48,000,000	6,000	1,703
Dzanga-Ndoki National Park	CAR	1,220	14,640,000	41,829	1,172
Nsoc National Park	Equ. Guinea	5,150	61,800,000	6,061	15,073
Gamba Protected areas complex	Gabon	7,000	84,000,000	6,667	6,237
Ipasa-Mingouli Biosphere Reserve	Gabon	100	1,200,000	10,909	6,237
Cross-River NP Okwangwo Division	Nigeria	920	11,040,000	3,839	896
Noubale Ndoki National Park	Rep. Congo	3,865	46,380,000	7,994	825
Odzala National Park	Rep. Congo	13,000	156,000,000	16,000	825
Total /Average		36,514	438,168,000	Ø 8,566	

**Table 5:** Loss of land and lost stumpage value of this land in Euro<sup>8</sup>

<sup>7</sup> **Sources:** 1 = Estimate on the basis of the pilot village Schmidt-Soltau 2002c, 2 = Noss 2001:330.

<sup>8</sup> **Source:** GNP (2000) = UNDP 2002; 1\$ = 1 Euro. The estimate is based on the current average export prices of lumber products (Euro 120,-/m<sup>3</sup>) with non-labour inputs comprising Euro 60,-/m<sup>3</sup> to bring

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 costs and take a 'free ride' at the expense of the park poorest populations. It is not surprising that neither conservation agencies, nor the governments even considered spending around 1.1 Billion Euros<sup>9</sup> - and not even one tenth of this amount - to compensate forest populations for their land and livelihood losses.

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 sustainable resettlement in order to establish protected areas as cheap as possible is unacceptable.

#### **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 national parks which have displaced the rural population without compensation or an organized resettlement action plan did not collect data on the pre-displacement cash and kind income 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 name, 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 involvement into the state territory have to be at least compensated 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).

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the products to the export point (PC Mersmann). The average yield of commercial logging is 5 m<sup>3</sup>/ha (PC Mersmann & Götz). As said before the yield in the national parks would be significantly lower, but hardly below 2 m<sup>3</sup>. Based on these figures, the lost stumpage value would be Euro 120/ha = 12,000/ km<sup>2</sup>. 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 km<sup>2</sup> per year (Tutin 2002:81).

<sup>9</sup> The total of table 5 extrapolated on the basis of the surface area ration (study area: total protected area).

Name	Total Area in km <sup>2</sup>	Population	Estimated annual income loss from h + g in Euro		
			Per capita in cash	In cash	Total (4)
Korup NP	1,259	1,465	76.02 (1)	111,369	195,521
Lake Lobeke NP	4,000	~ 8,000		558,560	980,617
Dzanga-Ndoki NP	1,220	350		24,437	42,902
Nsok NP	5,150	10,197		711,954	1,249,920
Gamba PAC	7,000	12,600		879,732	15,444,73
Ipassa-Mingouli	100	110		7,680	13,484
Cross-River NP Okwangwo Div.	920	2,876	158.96 (2)	457,168	802,614
Noubale Ndoki	3,865	~ 5,802		405,095	711,193
Odzala NP	13,000	9,750		680,745	1,195,128
Total /Average	36,514	51,150	Extrapolation figure: 69.82 (3)	3,836,742	6,735,854

**Table 6:** Income Loss Estimates as Effects of Resettlement<sup>10</sup>

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 practice. 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 arising from conservation also underline that the idea of 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 benefits<sup>11</sup> 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.

### 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 contribution and can be build without much effort

<sup>10</sup> Sources: 1 = Schmidt-Soltau 2000; 2 = Schmidt-Soltau 2001; 3 = un-conserved forest in a remote location: Schmidt-Soltau 2001. 4 = To transfer this cash income into 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).

<sup>11</sup> ‘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).

anywhere else. That is what we found in most cases surveyed. 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 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 other describe as an excellent intercultural partnership (Grinker 1994). This ‘partnership’ existed for long, but 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 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 Noubale 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 dangerous, 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.<sup>12</sup> 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**

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 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 multifaceted, 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**

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<sup>12</sup> 'In the 70ties 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).

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.

Specific problems arise from the complex interaction between the pygmies and the resident Bantu farmers. While anthropology utilizes different concepts to describe this relation - ranging from slavery to equal partnership - it is evident that this relation is changing when the Pygmies have no longer the chance to 'disappear' into the forest. The longstanding social interaction, which is based on the economic in-kind exchange of forest products for farm products, is collapsing together with its economic basis.

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, instead of what sometimes is termed as "humanitarian logistics" in involuntary resettlement. 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 an European multilateral donor in Uganda, for instance, local authorities decided to speed displacement by setting on fire the houses on the target families (World Bank, 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.<sup>13</sup>

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. FACING NEW RISKS OF BIODIVERSITY LOSS: 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 arriving from 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 pauses to such promoters. In short, 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 to this issue, signaled by other researchers as well, without detailed elaboration here, 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 forces hunter-gatherers to become cultivators-farmers, but their sedentarization becomes a fact and 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 declining 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,

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<sup>13</sup> 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 most governments in developing countries tend to lack both the capacity (institutional and financial) and the political will to carry out park displacement and resettlement in line with internationally recommended standards. This fundamentally undercuts the objective of achieving double sustainability both for biodiversity and for livelihoods.

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.

### **V. 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 (Cerneia 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?

For the inhabitants of natural parks the principles of sustainability are not the question in dispute. Their 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. Nobody beside the inhabitants of national parks is forced to change their lifestyles for the ‘survival of mankind’ and start a new life from scratches. But 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 and OECD) 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, 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.

It is our conviction that for new and sustainable solutions to evolve and succeed, research for the kind of solutions outlined in CIFOR's Challenge Program – 'solutions ... to attain a workable mix of conservation and development at large spatial scale' (CIFOR 2002) - on Rainforests must be expanded. The call is now not only on agro-biological research, but also on economic, social, and management sciences to intervene. The crucial 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 goals - goals for research, goals for conservation practice, and goals for improving people's livelihoods.

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