

# **HUNTERS AND GATHERERS IN CENTRAL AFRICA:**

**On the Margins of Development**

**John Beauclerk**

**Oxfam Research Paper 6**

# **Hunters and Gatherers in Central Africa:**

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**Oxfam Research Paper 6**

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The responsibility for the conclusions drawn from the material consulted is entirely my own.

John Beauclerk  
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## FOREWORD

This study arose out of concerns that the Oxfam programme in Central Africa was not addressing two separate but related issues: the needs of the forest peoples and the state of their environment, at a critical period for both. Country programmes in Zaire, Rwanda, Uganda, Tanzania, and Namibia either have made or are making tentative contacts with hunter-gatherer communities in both forest and savannah regions. These communities comprise savannah peoples such as the !Kung Bushmen (Namibia), the peoples known to Maasai pastoralists in Kenya as 'Dorobo', and the Hadzabe of Tanzania, who hunt in dryer lands which also supply vegetable roots for gathering; and secondly the tropical forest dwellers, mainly Pygmies, who also hunt, but rely on contacts with farmers to make up for the relative scarcity of palatable vegetables in their forests. All these communities confront a number of serious problems of future viability, with remarkable similarities across a wide geographical area. Whether forest or savannah dwellers, they face concerted attempts by their governments to settle them and integrate them into alien forms of subsistence such as farming or pastoralism. It is no coincidence that the difficulties of hunter-gatherers have arisen at a time when increasing commercial pressure is being brought to bear on their territories.

This paper attempts to clarify the relationship between the separate crises affecting the forest peoples and the lands on which they depend for their existence. The bulk of the material relates to Zaire, particularly the north-eastern forests of the country, though comparative material is included from countries within and around the Zaire Basin. Field work has been exceptionally brief for a study of this nature: two weeks in the Ituri Forest at a time (November 1990) when absence of fuel in Zaire made travel difficult if not impossible. As a result the study relies on documentation more than it ideally should.

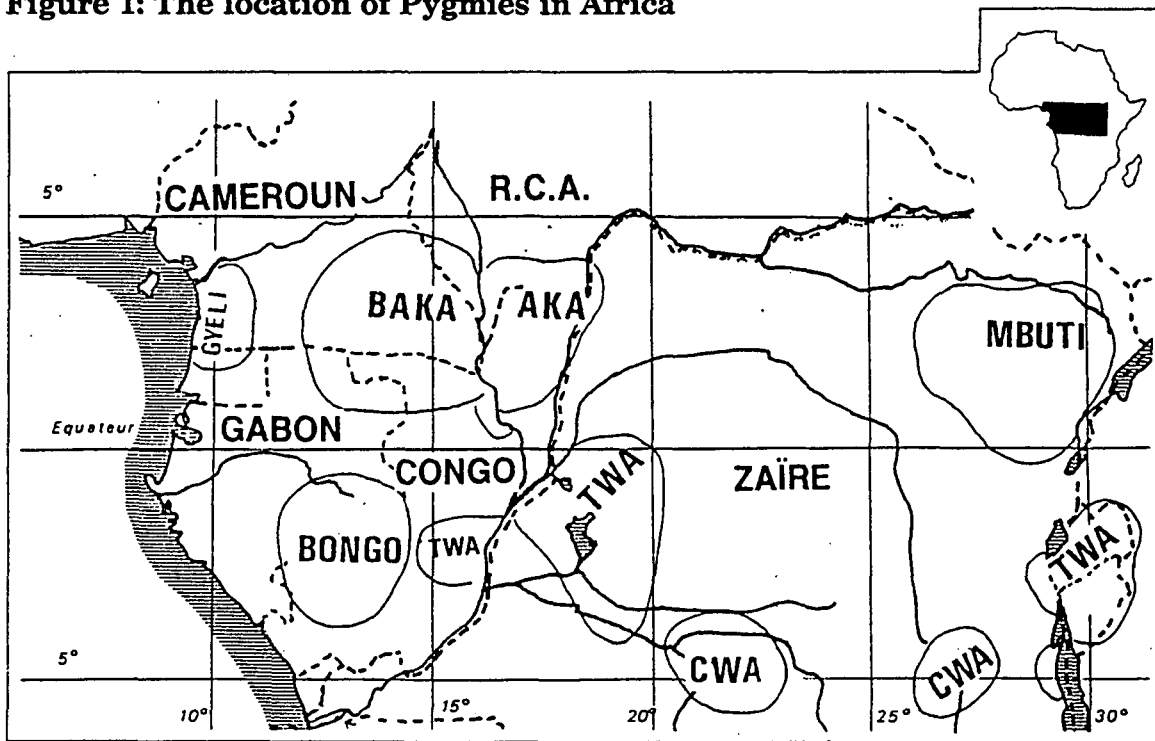
## INTRODUCTION

In comparison with Asia and Latin America, little is heard about the tropical forests of Africa and their indigenous peoples. This does not mean that similar processes of deforestation and exploitation of natural resources are not afoot — for they certainly are. It has more to do with relative rates of investment and effective exploitation, and the relative voicelessness of the populations affected. So far, although the logging industry and land clearance for agriculture are well advanced in countries on the fringes of the Zaire Basin, such as Ivory Coast, deforestation in the Zaire Basin itself does not yet match the rates of destruction for example, in Amazonia. At the same time, there is little internal debate concerning the dangers of industrial-scale exploitation, and so it is unlikely that the countries concerned will oppose increasing pressures on forest resources. On the contrary, these will be largely welcomed as the means of generating much-needed foreign earnings.

If there is little resistance to the destruction of the forest, there is even less internal debate about the future of those people whose way of life depends entirely on its continued existence. In Central Africa 200,000 Pygmies and perhaps 100,000 'Pygmoid' people are being rapidly excluded from their forest territories. Furthermore, international concerns about forest destruction in Africa focus almost exclusively on endangered fauna and flora, rather than on people, and in some cases conservation initiatives are a significant cause of hunter-gatherers' problems; by sealing off areas of crucial biological diversity, they effectively render Pygmies landless and without the means of subsistence. The purpose of this study is to bring together a number of different experiences gained by (mostly church) agencies working with hunters and gatherers, with a view to comparing approaches, discussing their merits, and putting forward recommendations for fieldwork, campaigning, and networking. These questions will be addressed in the third section of the document after preliminary examination of hunter-gatherer populations (Section 1) and their forest environment (Section 2).

The issues are complex, and in spite of the similarities in problems, hunter-gatherer conditions themselves are subject to a high degree of local variation. This document does not therefore pretend to present specific solutions; it will have served its purpose if it generates discussion about the future of hunters and gatherers and the best way for concerned outsiders to assist them as they confront what may turn out to be their last struggle for cultural and even physical survival.

**Figure 1: The location of Pygmies in Africa**



(Reproduced by kind permission of Survival International (France). Note that R.C.A. = République Centrafricaine = Central African Republic.)

# **1 HUNTERS AND GATHERERS IN CENTRAL AFRICA**

## **1.1 Introduction**

When in the 1980s a new phase of anthropological investigation took the dynamics of hunting and gathering societies as its theme, researchers were pessimistic about the Pygmies' chances of cultural and physical survival in the face of the many threats to their way of life. Although pressures have undoubtedly accelerated in recent years, it is equally true that hunting and gathering has survived into the 1990s and remains a viable and possibly timely alternative to market models of forest exploitation.

Perhaps the most important research finding in the last 20 years has been the realisation that hunter-gatherer society and economy is not a cultural 'throwback' that has survived by virtue of isolation; it has in fact co-existed with cultivating economies for centuries and possibly thousands of years, without losing its own mode of subsistence or social organisation. This does not mean that Pygmy association with cultivators has always been beneficial to hunter-gatherers; at some unknown point in the past, cultivators were able to establish political domination and exercise forms of social stigmatisation expressed in restrictions such as prohibition on inter-marriage (whose effects are most visible today in the virtual disappearance of most Pygmy languages), in widespread unequal exchange and patron-client relationships, and in a view shared by many members of different cultivator societies that Pygmies are people without intrinsic rights (see 1.5 below). However, contact with other cultures has not in itself threatened the Pygmy way of life.

This capacity for association with other cultures without prejudice to their own has also enabled Pygmies to survive repeated attempts by colonial and modern State administrations to transform them into settled and productive cultivators. However, not only the Pygmies but also their villager neighbours are now facing dramatic changes in their circumstances as hitherto isolated forest regions are opened up to a range of new influences; these influences change traditional relationships between hunter-gatherers and cultivators, to the detriment of the weaker partner. Section 2 will look at how hunters and gatherers, when denied access to land, fall prey to influences they have successfully resisted in the past. This first section deals with the status of hunter-gatherers in relation to their cultivator neighbours and the State, so as to show how they are systematically excluded from decisions affecting their lives and lands. Before that, the section looks at the distribution of different Pygmy populations in Central Africa and outlines a way of life that is shared by groups of hunters and gatherers over such a broad area that they may well not be aware of each other's existence.

## **1.2 Pygmy populations and their distribution**

A focus on indigenous rights and support for indigenous peoples is complicated in the African context by definitions. Clearly most if not all African countries are run, since decolonisation, by their original inhabitants. In practice a small number of the 750 ethnic

groups dominate politics and economics, at the cost of the rest. However, the majority are cultivators and are not discriminated against on the grounds of their mode of production. This is not the case for those marginalised minority groups who are politically weak and have not been able to protect their territories from encroachment. They may occupy lands unsuitable, or previously considered unsuitable for agriculture — dry lands and forests — or they may occupy, or have occupied until recently, fertile terrain, as did the Barabaig of Tanzania. Whether in fringe areas or in land of more obvious and immediate value, hunters and gatherers are systematically discriminated against in social, economical, and political terms, and their own mode of production is despised as primitive, inferior and unproductive. Among the most threatened modes of subsistence in Africa, nomadic pastoralism accounts for by far the greatest number of people. It is practised by approximately 14 million people, who typically face the kind of official incomprehension and harassment met with by the far fewer people (about 270,000) dedicated to hunting and gathering (Burger 1987). Among these are the San Bushmen of Botswana (25,000), Namibia (29,000), and Angola (8,000); the Hadzabe and Dorobo of the wooded savannas of Kenya and Tanzania (5,000); and, the subject of this study, the Pygmies of the Zaire Basin (200,000). All of these population estimates are very approximate; census work among hunter-gatherers is rarely carried out with any rigour, and is usually far from up-to-date.

Defined as a group by their low stature and distinctive genetic make-up, by their commitment to hunting and gathering, and by their status as the original inhabitants of their territories in the equatorial forest, ten or so different populations are spread across eight countries between the Great Lakes and the Atlantic: Uganda, Burundi, Rwanda, Zaire, The People's Republic of Congo, Gabon, the Central Africa Republic (CAR), and Cameroon (Bailey 1989).

**The Ba-Binga:** in the west of the Zaire Basin four groups, numbering 45,000 people, are known collectively as the Ba-Binga. Approximately 3,000 Ba Kola live in south-west Cameroon; there are 20,000 Baka people in south-east Cameroon, north Gabon, and north-west Congo; 20,000 Ba-Aka people in the south of the CAR and north Congo; and perhaps 2,000 Ba-Bongo in south Gabon and west Congo.

**The Ba-Twa:** in the centre and south-east of the Zaire Basin there is another widespread group: the Ba-Twa, divided between the Lake Tumba area of central Zaire (approximately 100,000) and the high-altitude forests of the inter-lacustrine region around the borders of Uganda, Rwanda, Zaire, and Burundi (20,000).

**The BaMbuti:** in the east of the Basin, a third major grouping is formed by the BaMbuti of north-east Zaire's Ituri Forest (35,000).

It should be noted that all the figures given above are approximate. They are largely taken from Bahuchet (1987), except for the figures for central Zaire, following information (Schultz, personal communication, 1991) that the sedentary Ba-Twa — known locally as Ba-Tua — of Mbandaka's Lake Tumba area number 100,000 rather than the 70,000 originally estimated. It is particularly difficult to estimate the size of dispersed populations, which occur more widely than supposed in the central Zaire regions of Equateur and the Kasais: they go unnoticed in the isolated forests, and moreover there has been no systematic census work since 1970. All estimates must therefore be treated with caution; just how vague they can be is revealed by Zaire's recent affirmation that 400,000 Pygmies inhabit Zaire alone (*Independent*, 24.2.91).

It is probable that hunters and gatherers are far less numerous now than they have been in the past, when their mode of subsistence was unchallenged. The majority of hunters and gatherers are now semi-nomadic, participating in agriculture to some extent or other in order to supplement growing shortages of forest game. It is impossible to estimate the size of previous populations, as Pygmies did not necessarily inhabit the entire Zaire Basin. However, the present density of the Efe in the Ituri forest in north-eastern Zaire is 1.5 inhabitants per square mile (4 sq km). A similar density over the entire Zaire Basin's 1,400,000 square miles (3.6 million sq km) would give a capacity level of 1,000,000 people, compared to the current lowest estimates of 220,000 for today's population.

### **1.3 The hunting and gathering economy**

While recognising certain similarities between hunters and gatherers across this vast region, anthropologists (Bahuchet 1987) warn against generalisations about a 'Pygmy culture'. Whereas the BaMbuti, Baka, and Ba-Aka share economies based on hunting and gathering, semi-nomadic residence patterns, and symbiotic relations with their farmer neighbours, the Ba-Twa (a widely used term which refers to a number of different and separate cultures) are also mostly hunters and gatherers — but markedly more sedentary. In extreme cases of acculturation, Ba-Twa, such as the Rwanda potters, form castes within agricultural societies; others, such as the Ba-Twa of Lake Tumba, have settled to grow manioc and also coffee and cocoa (Schultz, personal communication, 1991); the Babongo of south-west Congo scarcely hunt any longer, but specialise in raising chickens for the local market and supply firewood (Bahuchet 1987); many more exchange their labour with farmers for food, clothes or tools, or work for salaries in commercial plantations or forestry enterprises. There is certainly no common language among Pygmies, who mostly speak the language of their nearest farmer neighbours.

#### *Pre-colonial Pygmy subsistence*

Hunting and gathering are the oldest ways in which humans have exploited their environment and, even taking into account present-day variety, most Pygmies once shared a mode of production based on exploitation of the forest through hunting and gathering, without recourse to any form of agriculture or animal raising. (Dogs, bred for hunting, were the only domesticated animals.) Age and gender formed the basis of the division of labour — otherwise there was no specialisation. Pygmy adults were expected to master all the techniques traditionally available for their forest lives. This meant that any special needs, such as metal tools and clay pots, had to be furnished from outside the group. Twa groups from the densely populated inter-lacustrine region of Uganda, Rwanda, and Burundi form an exception; intensive colonisation by cultivators over a long period has forced them into subsisting on such acquired skills as pottery and metal-work in the absence of sufficient land for hunting and gathering.

A traditional Pygmy camp is located in favoured spot in the forest, typically on a rise beside a stream. The undergrowth is cleared to allow for the construction by the women of conical huts of leaves, lashed to bent branch frames. The larger trees are left for shade. A group will remain in a camp for several weeks, but when it departs, it will leave behind anything too bulky to be carried, such as beds and benches made of sticks. The group will in all likelihood return to the camp after touring other sites in a territory recognised both by the group in question and other related groups. One extremity of this territory will always touch on the lands of farmers, with whom the Pygmies maintain relations according to their mutual needs. Life in the camp is necessarily communal — the flimsy

structure of the huts and their proximity to each other make it difficult for members of nuclear family units to harbour secrets from neighbours.

Much, though by no means all, of the time is devoted to subsistence activities, either hunting, gathering, or preparing and repairing weapons. A variety of techniques is used for capturing prey, mostly collective and either with nets, bows and arrows, or spears according to ethnic preference and tradition. Women participate as beaters on the collective hunts, just as men gather mushrooms fruits and wild honey. The productivity of these hunts depends in large part on stewardship of the forest's resources; where there are no undue pressures, such as to satisfy demand in nearby towns, Pygmy hunters can husband resources and ensure a steady supply; indeed there are frequently cultural prohibitions against the excessive exploitation of game.

Researchers vary in their estimation of the viability of hunter-gathering subsistence economies. One view holds that hunters and gatherers typically eat more nutritious diets, expend less energy, and have more leisure than their farmer neighbours, whose agricultural activities are prone to climatic variations that cause regular seasonal hunger. The Pygmies, by contrast, can always provide for themselves from the forest. This view of the original 'affluent society' is contested by recent field work in the Ituri which suggests that the diet of even the more isolated BaMbuti bands contains more agricultural foods than the product of foraging (Hart and Hart 1986). However, Turnbull, who lived among some of the least acculturated Pygmies in the Zaire Basin, remains unconvinced (1986) that Pygmy dependence on agricultural produce is anything more than a phenomenon inspired by recent economic and political conditions. The ability of the BaMbuti to support not only themselves but also their villager neighbours during the upheavals of the Simba rebellion tends to support this position. It is likely that hunter-gatherers can adapt to a variety of circumstances as need dictates, and see little reason to forego agricultural products if they are easily obtainable.

Further debate about the relative proportion of diets supplied by hunting and gathering has led some researchers to describe the way of life as 'gathering and hunting', rather than the other way round. The point of their research is to throw light on the relative contributions of hunting, a predominantly male activity, and of gathering, mainly the domain of women, to the diet. As far as gathering is concerned, a gatherer-hunter description would probably not hold true for the Pygmies, given the relative lack of edible vegetables in the forest. Seasonal collection of forest products provides medicinal herbs, and variety to the diet: edible roots and leaves, oil palm nuts, mushrooms, and protein sources such as termites, beetles and caterpillars. However, studies by Nadine Peacock in the Ituri emphasise the importance of women's work in the overall diet: 'Cultivated foods procured by Efe women in exchange for labour form the mainstay of the Efe diet ... Their role as providers for their families is a source of pride for Efe women' (Peacock 1984).

#### **1.4 Pygmy social organisation**

The most remarkable feature of hunter-gatherer social organisation, and the one that differentiates it most completely from other forms of human social organisation, is the level of equality achieved among its members. In the view of the anthropologist James Woodburn, hunter-gatherer egalitarianism is a political option that has to be defended and continually asserted against temptations of accumulation of wealth, power, and prestige. Mobility, a commonly observed characteristic of hunter-gatherers, is just one of

the means by which they can achieve an egalitarian social order unknown in societies with different modes of subsistence; the other means include equal access to technology, territory and resources, highly developed and obligatory sharing mechanisms, and sanctions against the imposition of control or authority (Woodburn 1982).

Pygmy social organisation is based on the camp, which must expand and diminish in order to maintain both the viability of hunting and gathering activities and harmony within the group; the typical size is between 30 and 60 people in ten or so huts. Discipline and obedience to accepted cultural mores are established jointly through general and freely dispensed criticism (a child or young person, for instance, can be criticised for anti-social behaviour by anyone, not just parents). The ultimate threat is ostracism, since no one can survive alone in the forest outside the subsistence unit formed by the camp. However, with the exception of the net-hunters of the Ituri, who must mobilise large groups of people for a successful hunt, there is little need for organised cooperation. Otherwise there is little need for or effort devoted towards consensus; Pygmies who feel dominated or merely uncomfortable can vote with their feet, abandon camp and join another one, or even set up one of their own.

Although there is little evidence of systematic discussion leading to agreed decisions, important questions such as choice of residence are freely aired in the camp, with women playing an active part; there is often a conflict of interest between women, who do not wish to distance themselves from the fields of villagers, and men, who wish to hunt in undisturbed forest. The fact that agricultural produce plays an increasing role in the Pygmy diet means that the women often have their way.

Each camp maintains close relations with neighbouring camps, among which there is a constant toing and froing. Couples will visit their parents and other relations, staying from a few days to several months; other visits may concern ritual ceremonies, dances or large collective hunts. The members of a camp may decide to visit and settle for a while alongside a village, in order to service the important relationship with the cultivators (see below 1.5). While there is nothing static about Pygmy life in the forest, it is not simply subject to the whim of the moment: decisions are reached on their merits, the objective being to assure the collective well-being of the camp.

The Pygmy accent on mobility has had the effect of encouraging an egalitarian social order based on sharing. The resources supplied by the forest are distributed equally within the camp; rather than seek a surplus of food, more emphasis is placed on preserving the forest as a storehouse (through taboos on hunting particular game at certain times of the year, for instance). Most food gathered is consumed in camp within 48 hours, although game destined for exchange with villagers is smoked. The intensification of contacts with traders from beyond the village world of the cultivator neighbours can place strains on sharing mechanisms, particularly where cash replaces agricultural produce as the means of exchange.

Hunting plays a crucial role in determining the development of Pygmy males. They first join the hunting party as beaters with their mothers and sisters. Later they become assimilated as adults by earning the right to marry through the capture of a large game animal. Otherwise the preparation of children for the rigours of forest life is pragmatic, based on imitation, and uncluttered by complex ritual. Circumcision is not practised unless neighbouring villages insist on it though puberty in girls is celebrated, at least among the Mbuti, in rowdy banter that in effect allows the women to make clear their

preferences among eligible bachelors. Marriage is preferentially monogamous, and the crucial role of women in the Pygmy social economy is implicitly recognised in the custom of sister-exchange, according to which a young man who is courting must show that he in turn can provide a suitable partner for a member of the family of his betrothed. Given the independent frame of mind of Mbuti women, such negotiations present young men with a serious diplomatic challenge. As the forest life undergoes changes, finding marriage partners becomes one of the greatest difficulties of young Pygmy men in those areas where cultivators are taking their potential wives (Peacock 1984).

Pygmy religion is described variously and may depend regionally on the level of contact with cultivators and missionaries. In Mbandaka the Batua believe in forest spirits (*elima* in Lingala), according to Schultz, while in Cameroon missionaries take heart in what they see as belief in a single, benign God (Bahuchet 1987). However they see the source of life, Pygmies in general reserve their deepest feelings for its creation, the forest — their all-provider. Song and dance, frequent among the Pygmies, are celebrations of the forest world and the Pygmy role within it. Among the Mbuti the spirit of the forest materialises in the shape of a trumpet (*molimo*) wielded by young men at critical moments in the camp's life: after a death, or on return to the forest after a prolonged absence in the village.

In order to understand the changes coming to bear on the hunting and gathering way of life and the capacity for Pygmies to respond, it is important to retain the picture of Pygmy social organisation as inextricably linked to the forest, and non-hierarchical between sexes and ages to a degree unknown among African cultivators, and entirely lacking in concepts of stores of wealth, or of individual ownership of land. It has been a successful formula for at least 5,000 years, though it will be tested as never before in the next 20 years.

### 1.5 Hunter-gatherer relations with cultivators

As already seen, contacts between Pygmies and their farmer neighbours are of long standing. Exactly how long is a matter of speculation, and there are as many different ideas as there are authors who have looked at historical processes of this kind. The Mbuti of Zaire may have been associated with Bantu, Ubangui, and Sudanic shifting cultivators for more than 2,000 years (Beazley 1990), and Bantu penetration of the western equatorial forest fringe, where the Aka live, could date from another 2,000 years before that (Bahuchet and Guillaume 1982). The relationship, ideally, is of mutual convenience and based on the exchange of forest and agricultural products. The hunter-gatherers provided prestige foods such as meat and honey, medicinal plants and edible mushrooms, cords and other building materials. The agriculturalists contributed starch foods, pottery and metal tools.

The origins and history of hunter-gatherer and cultivator social organisations are also the subjects of debate: it is not, for instance, impossible that the present domination of hunter-gatherers by cultivators conceals the reverse situation at some distant point in the past when hunter-gatherers enjoyed political dominance (Woodburn, personal communication, 1991). However, the known historical record gives cultivators the upper hand, and what is remarkable is that in some cases centuries of coexistence do not appear, at least until recent times, to have significantly changed the social organisation or technology of either; the cultivators, who 'brought with them concepts of empire, nation, chieftdom and tribe, all alien political forms to the forest hunters' (Turnbull 1983), essentially retain a village-based, hierarchical, strongly gender-differentiated social

structure supported by a shifting agriculture economy. Such farmers typically clear islands in the forest, and grow a variety of starch foods (manioc, plantain, yam, sweet potatoes and beans) over a few seasons before allowing the forest cover to reform and regenerate the exhausted soil.

While populations are low, this form of subsistence agriculture is a sustainable use of the forest. Over time it may even have increased ecological diversity and provided more food resources for forest animals (Wilkie 1988). The relatively low density of game in undisturbed 'climax' forest has led some researchers (Bailey 1989; Hart and Hart 1986) to speculate whether hunting and gathering was viable in the forest before the activities of the cultivators increased the availability of game in this way, and furnished starchy food crops for the forest peoples. For instance, recent research found that Efe archers of the Ituri forest obtained no less than 60 per cent of their calories from food exchanged with Lese villagers (Peacock 1984). Others insist the Mbuti were successfully adapted to the forest long before the arrival of the cultivators, and were not dependent until relatively recently on Bantu food supplies (Turnbull 1983).

Either way, each society had much to offer its neighbour, and it was their differences that enabled them to do so. They had successfully maintained long-term exchange relations without technological assimilation (Bahuchet 1987), and had taken pains to perpetuate a 'structural opposition that had enabled both populations to maintain their own ways of life and belief in the same environment' (Turnbull 1983). This could not have happened if both Pygmies and cultivators had not consciously sought to keep their worlds separate: neither group was interested in allowing the other to acquire its particular skills, as is now increasingly happening.

Members of both cultures believe that it was the Pygmy forest dwellers who first enabled the cultivators to leave the savannah and live in the forest, which farmers regarded with fear and distaste. Cultivators' myth and ritual explicitly recognises the Pygmies as the original inhabitants of the forest, and Pygmies also play a crucial role in the cultivators' justification for possession of the lands they inhabit — though, as we shall see, this does not extend to recognising Pygmy rights to their own land. Nor has long association between the two cultures led to mutual respect. The Mbuti Pygmies among whom Turnbull lived in the then Belgium Congo (Turnbull 1961) were full of scorn for their Bira neighbours; Bantu paranoia concerning evil and its many rituals of absolution was irrelevant to a people who had no word for evil in their own language. Pygmies fostered these fears in order to keep their neighbours out of the forest: they felt that the Bira and the profane world of the village would violate the sanctity of the forest.

But to maintain appearances, BaMbuti participated to some degree in Bira ritual, to the extent even of including their children in circumcision rites. BaMbuti also connived at the Lese conviction that individual villagers had hereditary rights over their Pygmies, who were bound to provide forest products and sometimes labour for their 'patrons'. The Pygmies considered the value of goods received from their villagers far outweighed any services rendered on their part, and would boast among themselves how they had got the better part of an exchange with a 'stupid villager' (Turnbull 1961).

For their part the Bira took their rights of ownership quite seriously, insisting for instance on payment in the case of losing a Pygmy to another village by marriage. For in spite of a certain recognition of Pygmy prowess in healing, warding off evil, and hunting, cultivators in general regard Pygmies as little more than animal and certainly not entirely

human. Such attitudes are common throughout the Zaire Basin. In Central African Republic, Bahuchet reports: 'Conceived of by their neighbours as a separate entity, or one that is related to chimpanzees as related in folk tales, the Aka are always semantically opposed to Men. The village is conceived of as a human and cultural space, as opposed to the Aka camps in the forest. They are also differentiated from animals, their links with chimpanzees perceived as having been ruptured at some point in the past when the latter were relegated to the animal world. The Aka, then, occupy an intermediate state between the human world and the animal world, and are conceived of with considerable ambivalence by their "Tall Black" neighbours' (1987).

In south-west Uganda, where Kiga farmers and the government department responsible for conservation have all but dispossessed the Ba-Twa of their last forests, they will not eat or drink with Ba-Twa because of their supposed inferiority, and assert that Pygmy children are born with their eyes closed like puppies. 'As farmers lost their fear of the forest and its spirits, and no longer needed the Twa as guides or mediators, their contempt for these hunter-gatherers' way of life asserted itself and they erected the social barriers that keep them separate' (Kingdon 1990). In Burundi and Rwanda, Batwa who were once integrated under Tutsi patronage into the complex economic and political structure of Hutu cultivators and Tutsi pastoralists have also been over-run, leaving isolated bands of hunter-gatherers marooned in a sea of pasture and cropland. The niche preserved for hunter-gatherers by their Tutsi overlords has not survived the partitioning of these countries between pastoralists and cultivators (de Carolis 1977).

#### *Dispossession: the Burundi case*

The 'transformation and marginalisation' of the Twa Pygmies in Burundi, which has been studied in detail by the Italian anthropologist Antonio de Carolis (1977), reveals just how low hunter-gatherers can fall when deprived of access to land and (relatively) sympathetic relations with the politically powerful. Their particular predicament also has a direct bearing on the destiny of other hunter-gatherers in the Zaire Basin since, without remedial action, they are likely to follow a similar path. De Carolis limited his study to Butara, a mountainous area of elevations between 1,500 and 2,233 metres that was once covered with forest rich in bamboo, but has become largely denuded, with the exception of the Kibira reserve which consists of still untouched forest along the crest of the mountain range separating Burundi from Rwanda.

De Carolis located 313 BaTwa dispersed among 21 settlements of between 6 and 32 people. The majority population of the area comprised 12,000 Hutu cultivators and a small number of Tutsi administrators and soldiers. Landless, deprived of the right to hunt and gather, and weighed down by punitive tenancy conditions, the situation of the BaTwa was desperate. In the words of a MuTwa:

Nowadays, among our race, there are people who spend all day at home because they don't have anything to cover themselves with in order to go out and search for food for the children ... The authorities tell us to cultivate, but amongst us there are people who never even knew what a hoe was. And even if they did try to cultivate, the soil produces nothing ... Lately the situation has become even worse; there is nothing that can give us any help. Some don't even have an occupation; they have become disabled and useless. We have looked for a way to save ourselves and have not found it.

On the evidence presented by de Carolis, the BaTwa face all-encompassing discrimination on racial grounds which consigns them virtually to pariah status. Restrictions on contact between BaTwa and Hutu abound. For instance, sharing food, or 'commensality' as anthropologists describe one of the most basic features of human social relations, is hedged with prohibitions: Hutu cannot sit down to eat with Batwa. That such restrictions are widespread across the Zaire Basin is indicated by Michael Schultz's experiences with the Batua of Equateur (Zaire); their BaOto neighbours are careful to eat apart from Batua; even though individual cultivators are known to share meals with Pygmies in their forest camps, this happens only as long as other BaOto are not present to witness the infringement of the taboo (Schultz, personal communication, 1991). Among the Hutu such restrictions are so embedded that they can seriously inconvenience BaTwa, particularly when they have economic implications. The Pygmies, for instance, pay rent to their Hutu landlords and patrons in beer, but since Hutu refuse to drink beer produced by BaTwa, the Pygmies are forced to earn the cash to buy beer from other Hutu. This beer costs the BaTwa dear, because their position at the very bottom of the Burundi social pyramid ensures that their wages are well below the minimum wage stipulated by the government. Other restrictions that reinforce discrimination have to do with inter-ethnic marriage, equal access to agricultural or pastoral production, and identification with a limited range of crafts and other activities.

According to de Carolis, the marginalisation of the BaTwa is by no means a recent feature. The process, he surmises, would have been under way ever since Hutu cultivators first arrived in Burundi and progressively occupied camps and clearings abandoned by Twa hunter-gatherers, and would have passed unnoticed by the BaTwa themselves as long as there was an abundance of land. However, the arrival of Tutsi pastoralists — the second wave of colonisation from the Twa point of view — found the cultivators already in possession of a large proportion of the land. Subsequent European colonisation accentuated a process of long standing by associating Burundi with the international economic order. Independence and the new Republic served to reinforce a rigidly hierarchical structure and, furthermore, to legitimate dispossession through severe legal restrictions on hunting and gathering.

### *Opening the Ituri Forest*

As recently as 1961 anthropologists could still describe the relationship between cultivators and Pygmies in the Mbuti area as reciprocal, a mutual inter-dependence between equals. Together they had survived the slave raids and the opening up of the forest during the colonial era, with the Pygmies providing additional food and assistance when forced labour on cash crops put pressure on the farmer economy (colonisation, as we shall see, affected the villagers more keenly than the Pygmies). However, more recent developments affecting both Pygmies and cultivators in the Ituri region of Zaire have threatened the very basis of the relationship.

During the early years of the Zairean Republic, the Simba Rebellion brought turmoil to the forest. Between 1964 and 1970 missions were razed and plantations burnt, and the villagers sought sanctuary in the forest from both rebels and government forces. Once again the Pygmies had come to their neighbours' rescue. But after the rebellion nothing was ever the same. Peace enabled the new State to turn its attention to the potential wealth of the region, starting with the imposition of administrative control. It was a turning point. "Traditional political authority was disrupted. Populations were reduced or relocated, and the forest opened to new people. As old allegiances disintegrated, Mbuti

forged ties with immigrants, meat traders and gold prospectors who moved into the forest after the rebellion' (Hart and Hart 1984). The 70,000 sq km of forest were bisected by a section of the Trans-African Highway — a grand description for a muddy track cut through the forest which brought in settlers from the densely populated region of Kivu to the east. The new arrivals were firmly inserted into the market economy, practising quick-profit commercial agriculture and heavily engaged in trading and other roadside services. With little need for reciprocal exchange relations, the Mbuti found themselves selling meat for cash or engaging in menial wage labour. As a result the traditional relationship with the original cultivators suffered, meat became scarce, and the Mbuti were forced to spend more and more time in the roadside villages, earning cash for food.

Recent changes in the Ituri region reveal a downward spiral in the prospects both for villagers and Pygmies. The threat of deforestation has provoked the government to establish national parks, denied to hunters. Forced into agricultural labour with no land of their own, the Mbuti depend increasingly on their wives' work in villagers' fields; polygamy increased among the Pygmies, who had never previously regarded women as a means of production. Furthermore confronted by the alternative of a redundant hunter-gatherer life and the relative prestige and security of village life, more and more Pygmy women married villagers. Since no woman cultivator would ever marry a Pygmy, the root of Mbuti life became threatened (Peacock 1984).

Other Pygmies have sought to escape the patron-client relationship through salaried work or subsistence farming on their own account. They are typically engaged by plantations in seasonal wage labour on a daily basis, clearing land, weeding, or picking coffee; or by logging enterprises, where their skills are used to identify valuable timber species. Other occupations include working as guides for hunters and trackers in game reserves. However, Pygmies are invariably paid a small fraction of the going rates, which is insufficient for more than short-term needs in food or in luxuries such as tobacco and drink. Their employers complain of Pygmies' inconstancy: those engaged on a monthly basis are even known to leave after a few days without withdrawing their pay. The attempt to adopt subsistence agriculture of their own also poses near-insurmountable problems for Pygmies. The techniques in themselves are familiar to them, but they either lack land or are assigned areas of poor soil by cultivator owners whose own interests are not served by an independent Pygmy population.

Survival strategies for hunter-gatherers in areas of land pressure and declining game are both varied and demanding. The Batua of Mbandaka, Equateur work on the Lever Brothers' oil palm plantations in addition to servicing patron-client relations with BaOto cultivators. Pay is so low that they are also forced to practise their own subsistence agriculture. But since the land they farm belongs to the BaOto, their patrons can call on them in times of need. These times always coincide with the crucial points of the agricultural calendar, such as planting — just when the Batua should be preparing their own fields. With all these pressures Pygmies' agricultural production remains well below the level of their needs, and the cycle of debt repeats itself when they have to borrow more food from the patron. Their own hunger is perpetuated, and they are exposed to criticism as shiftless and poorly organised. In reality the BaOto are careful to ensure that their Batua remain tied to them as a ready source of cheap labour (Schultz, personal communication, 1991).

The Mbuti experience in the Ituri, considered by researchers to be home of the Pygmies least affected by the market economy in the Zaire Basin, is a warning against easy

solutions that involve subverting the age-old relationship with villager neighbours. Discriminating and unequal as Pygmy-villager relations clearly can be, there are evidently worse situations. As we shall see in the next section, both the State and missionaries (sometimes in collusion) have sought to drive a wedge between the two in order to create dependence on themselves. Pygmies everywhere put up with the unequal relationship with the villagers because they felt they got out of it more than they put in; when it became insupportable, they simply retreated further into the forest — a threat which villagers understood and feared. Hunters and gatherers confront their nadir when pressure on land forces cultivators to clear their entire territory. Pygmies are reduced to a landless and marginalised proletariat, living a despised life on the fringes of society, their morale irreversibly eroded, and apparently incapable of taking advantage of the few benefits and exemptions that come their way.

## 1.6 Hunter-gatherers and the State

By no means all Pygmies face the situation of the BaTwa of Burundi and of the Mbuti in the Ituri, and even within the Ituri forest itself there are groups still living relatively independent lives for at least part of the year. But even though the dramatic events of north-east Zaire are exceptional, hunter-gatherers throughout the Zaire Basin face problems of shrinking resources, intrusion of the market economy, and administrative pressures. They do so generally ill-prepared for their own defence, possessing no land rights of their own, and with little education to analyse their predicament in a wider context or make their voices heard concerning their wishes. The last section examined Pygmies' relations with their closest neighbours; this one will look at the ways in which central authority has reacted to questions concerning hunter-gatherer societies.

### *Colonial economics*

As already mentioned, cultivators bore the brunt of the early years of colonial rule, as they had done with the slave trade. The administration of large areas of forest was to all intents and purpose abrogated to concessionaries — generally trading companies concerned with the export of natural forest products. Forty-one concessions covering 700,000 sq km were granted in Equatorial French Africa, and in the Belgian Congo another 300,000 sq km were administered in this way. Forest products were exported in vast quantities: French Equatorial Africa produced 160 tons of ivory in 1910 and 800,000 antelope skins in 1937 (Bahuchet and Guillaume 1982). King Leopold of Belgium's Crown Domain covered what has become modern Zaire's Equateur region; between 1896-1905 it earned the royal treasury 71 million Belgian francs in net profit (Schultz, personal communication, 1991). However, coercive methods of amassing these vast quantities of products — including rubber, precious woods, oil palm, and copal resin (a varnish) — destroyed traditional village life, provoking famine and depopulation. Ruthlessly applied collection quotas for rubber, which saw a boom in the early years of the century (principally for the new European motor industry) were particularly harmful and eventually brought international condemnation on the Belgian King. Atrocities committed against the villagers were documented by the then British Consul, Roger Casement, who went on to record similar tactics employed by rubber trading companies in Amazonia.

Early in this century hunter-gatherers were drawn into the commercialisation of the Zaire Basin, essentially as logistical support for their villager patrons who no longer had time to tend their fields; field labour was a departure from their traditional roles as hunters (and providers of ivory and skins). The new field-labour role was accentuated when the

colonial administration introduced forced labour for public works (railways, roads) between the wars and later for the compulsory production of cash crops: cocoa, coffee, and cotton. Pressures exerted on farmers by the administration were transferred in turn to their own Pygmy subordinates. Traditional reciprocal exchange between the two peoples gradually evolved into 'an authoritarian system bordering on slavery' (Bahuchet 1987).

### *Political control*

Direct attempts by colonial rulers to harness hunter-gatherers to work were less successful than with the stable village population. Attempts were occasionally made, as in the Belgian Congo, to settle Pygmies in their own villages along roads, mimicking the new pattern of settlement imposed on the farming community. Most of these experiments were abandoned in face of the difficulties of bringing any discipline to bear on an essentially nomadic people. However, Pygmies in heavily exploited areas such as the Crown Domains, which were unable to resist the combined weight of market forces and administrative control, have now been sedentary for about a hundred years. But on the whole, aware that the cost and effort of mastering the Pygmies would not be worth the rewards in terms of taxes and labour, the colonialists were content to leave the task of managing the Pygmies to villagers.

As a result, though they bore the brunt of colonial rule, villagers also strengthened their control over their Pygmy clients. In the 1920s and 1930s administrators of the Belgian Congo set about rationalising local administration and land tenure; the resulting system of indirect rule through the *Circonscription Indigène* ensured that local political control, though overseen by Territorial Administrators, was vested in (sometimes quite fictitious) tribal groupings and leaders (Schultz, personal communication, 1991). For the first time, customary land rights of the farming population were enshrined in law — law that effectively disenfranchised the hunter-gatherers. The villagers succeeded in monopolising access to justice through tribunals, which settled most local disputes. Furthermore, villagers took care of their Pygmy clients' tax obligations, accentuating their status as virtual legal minors or non-persons.

### *Emancipation*

In French Equatorial Africa colonial administrators took it upon themselves to free the Pygmies from subjection by their neighbours. A 'Taming' policy was devised in the 1930s to win the Aka Pygmies' trust, to attract them and familiarise them with the administration, and show them the advantages of medical care. This was achieved partly with gifts of iron, salt, and tobacco. The idea was that the Pygmies would see the benefits of dealing directly with the Whites, and rid themselves of their traditional villager intermediaries. The Pygmies would be emancipated from their 'masters', only to become dependent on the administration. Thus their participation in 'productive work' was assured, as was the 'development' of the colony (Bahuchet and Guillaume 1982).

The effects of the 'taming' policy, which led to a second phase of 'stabilisation' in which Aka shouldered full obligations such as taxation and production targets, were uneven. If profound acculturation took place among several groups, and a certain amount of economic independence was achieved, elsewhere 'emancipation' led to an aggravation of the dependence of the Aka on the Tall Blacks. By encouraging an increase in production for the external market, stimulating exchange and creating new needs, the colonial administration did not assist the Pygmies in controlling their position in a new world;

rather they reinforced the privileged position of the Tall Black intermediaries' (idem).

Emancipation therefore amounted to failure in the attempt to sever age-old links with the cultivators: a process, were it to be successful, that would demand little short of a social revolution, so engrained are the ties of mutual dependence. The objective of emancipating the Aka was blocked by the strength of their connections with the villagers, which made it inconceivable for Pygmies to trade independently. In the Ituri, no such inhibitions constrain the Mbuti, who at first sight benefit economically from the free trading of their surplus meat. According to Hart, 'the replacement of the Mbuti's subsistence economy with a wider commercial system has not necessitated a reordering of their social priorities. On the contrary, market hunting may actually enhance the communal structure of the Mbuti's band life' (1978). Section 3 will examine how action on behalf of Pygmies can benefit from these lessons.

Something akin to social revolution was attempted by the new Republic of Zaire, whose President, Mobutu Sese Seko, in 1974 declared the Pygmies 'emancipated' and the country's 'first citizens' in recognition of their original occupancy of the forests. Befitting their new status, the word 'Pygmy' was proscribed, and model roadside villages were constructed with schools, health posts, and solid dwellings. Residence in the model villages was obligatory, but the Mbuti were initially delighted with their new-found status and the attention paid to them (even claiming the right to pay taxes directly, and no longer through their patrons) — until they began to fall ill in their new settlements and had to return to the cool of the forest. The Pygmy question became eclipsed for the government by more pressing economic and social problems, and the experiment was soon abandoned, leaving the first stirrings of a political consciousness among the Pygmies and a deep resentment on the part of the villagers, who were insulted by the assumption that the Pygmies needed presidential emancipation from their exploitation.

Burundi, whose Twa populations have been reduced to tiny minorities of landless and marginalised groups (approximately one per cent), also camouflages discrimination by eliminating any reference to ethnic origin, as though exploitative social relations can be made to disappear merely by proclaiming equal rights before the Constitution. The partial failure of early assimilation programmes (there were rare successes from the State's point of view, as for example among the Batwa) has meant that States return to the problem only when dispossessed Pygmy populations reappear as the poorest of the rural and urban poor. Renewed government efforts to assimilate hunter-gatherers, such as Rwanda's current integration programme, offer too little too late. By not granting assured land rights adequate for traditional hunter-gatherer needs, and by avoiding other crucial issues such as equal access to justice and to appropriate forms of education, governments now face the all-but impossible task of rehabilitating a marginalised and despised Pygmy proletariat. Mbuti along the Trans-Africa Highway (north-east Zaire), Batwa in Bufumbira (Uganda), Gisenyi (Rwanda), and Butara (Burundi) are among those reduced to this state. In the opinion of the anthropologist James Woodburn, ideologically-inspired and insensitively-applied integration schemes are responsible in themselves for setting back by at least a decade any process towards assimilation on equal terms, and furthermore for discrediting such plans among hunter-gatherers themselves (personal communication, 1991). Section 3 will consider the modern State's reaction to the 'Pygmy problem' in further detail.

## 1.7 Conclusion

The combined effects over 100 years of colonisation, subordination, and national independence have left a varied picture of hunter-gatherer life. While Pygmies are engaged in many different pursuits besides their hunting and gathering activities, few of these are exercised freely and without the constraint of discriminatory social or market forces. Pygmy social organisation now typically includes some of the following features:

- growing sedentarisation that places them in more or less permanent camps (alongside the roadside villages of cultivators which have also become permanent);
- shorter forays into forests that yield smaller amounts of game with different technologies (such as traps);
- some adoption of agriculture (though invariably less than farmer neighbours);
- growing individualisation of their communal life, and changes in their leadership patterns;
- increasing dependence either on patrons or the market, or both.

Adaptations to Pygmy social organisation have most severely affected the rights of women within the groups, and it should be no surprise that women increasingly opt out of the hunting and gathering mode of subsistence. Nor should it come as a surprise that Pygmies react to their new status of rural proletariat and to the stereotypes of laziness, stupidity, and drunkenness that are often attributed to them, by seeking refuge in escapist forms of behaviour. Having made the transition from hunters and gatherers to rural proletariat without first passing the preparatory farming 'stage', dispossessed Pygmies have little to look forward to and much to regret.

## **2 THE EQUATORIAL FOREST**

### **2.1 Introduction**

The previous section suggested that survival of the hunter-gathering way of life is directly linked to the survival of the forest itself. While the Pygmy population has secure access to territory, its technology and social organisation remain intact, relatively unaffected by social economic and political events on the forest fringes. As soon as their access to the forest is restricted in any way, Pygmy communities undergo a process of transformation that begins with sedentarisation — settlement in permanent camps — and ends eventually with landlessness, marginalisation, collapse of self-respect, and penury. The section also showed how a century of colonial rule and independence has exerted greater changes on the forests of the Zaire Basin than 2,000 years of combined occupation by farmers and Pygmies. As a result, all Pygmy communities of the equatorial forest are affected by this process of acculturation to some extent or other. This section looks at the erosion of the Pygmies' resource base, the equatorial forest, and examines some of the possible reasons for the rapid rate of deforestation in the Zaire Basin. It is important to be clear about who or what is destroying the forest, as such analysis affects the various strategies proposed to resolve the problem. These strategies are examined in Section 3.

### **2.2 Origins and extent of the equatorial forest**

Africa contains over 20 per cent of the world's remaining rainforest, the largest and least disturbed section of which lies within the Zaire river catchment. The Zaire Basin covers some 3.6 million sq km (1.4 million square miles), an area a little less than half the size of the United States, and contains over 80 per cent of Africa's tropical rainforests. It extends from Gabon on the Atlantic seaboard through the People's Republic of the Congo, Cameroon, Central African Republic, and Zaire (Wilkie 1988). Zaire alone accounts for one million sq km of rainforest — some 13 per cent of the world total (Myers 1989). Only Brazil and Indonesia have more rainforest.

The 'basin' is well-described, since it owes its origins to a broad, shallow lake, approximately 1,600 km (1,000 miles) in diameter that drained away into the Atlantic during the Tertiary period to expose what is now the forested Zaire Basin. Although rainforests are thought of as the oldest forms of forest, the Zaire Basin is of relatively recent origin in its present form. Twelve thousand years ago, during the last ice age, lower temperature and rainfall caused the forest to shrink to three patches of forest known as 'Pleistocene refuges' in Gabon, Guinea, and Eastern Zaire. The refuge in Zaire's Ituri forest was the largest and most diverse. As the ice withdrew, rainfall increased, allowing animals and plants from the refuges gradually to recolonise the basin. The refuges have remained important areas of biological diversity, and today Zaire is Africa's richest country in terms of plants and animals, having more than 11,000 plant species, of which nearly one third are found nowhere else. With a grand total of 409 species of mammal, it has almost 100 more than any other country on the continent (Beazley 1990).

The Zaire Basin is inhabited by more than 200 different ethnic groups, numbering some 52 million people. It is unclear how long the forest has been inhabited, but there is archaeological evidence of hunter-gatherers living within the present forest boundaries as long as 40,000 years ago. Whether the Pygmies are descended from this Stone Age culture is not known; they were first reported in the forests south of Sudan by Egyptians 5,000 years ago. Farmers first started penetrating the forest from their savannah homes between 2,000 and 4,000 years ago, and their descendants are the Bantu and Sudanic-speaking cultivators who occupy the forest with the Pygmies today (Wilkie 1988). The Pygmies may not have populated the entire Zaire Basin, preferring the species-rich refuge areas in Gabon and Zaire. This may have changed as cultivators left the savannah to make their way along rivers into the forest, forging links with hunter-gatherers that improved their chances of physical survival in an alien and difficult environment.

Both Pygmies and cultivators exploited the forest in essentially sustainable ways, although their technologies were very different. Mobility was a key feature of sustainable forest use, though each people applied it at different rates. The Pygmies would have roamed widely to meet needs spread thinly through the forest, while the cultivators, exploiting the waterways for fishing and small gardens for starch foods, would have moved much more slowly. Before the cultivators acquired bananas and plantains from the Arabs and the South American crops — cassava, maize, sweet potatoes, beans and squash — from the Portuguese, their level of dependence on the hunter-gatherers must have been acute, giving credence to speculation about very different political relations from those existing between the two distinct peoples today (see 1.5 above). The only native crop species of the equatorial forest are oil palms and herbaceous vine yams, a fact that led researchers such as Bailey to doubt the ability of hunter-gatherers to have ever occupied the forest without access to the products of the cultivators. Even the new crops, which enabled the cultivators to establish more extensive agriculture, made little permanent impact on the forest; the cultivators farmed on long fallow rotations — the 'shifting agriculture' that uses the forest itself to restore the fertility of abandoned garden sites.

The impact of population pressure, roads, extractive industry, and industrial agricultural production since the colonial era has entirely reversed the previous ecological stability. If trends persist unchanged, there is a very real chance that 'hardly any forest will remain in Madagascar, East Africa and West Africa beyond the end of the century, due to the combined pressures of population growth and impoverished peasantry' (Myers 1989). In Central Africa the greatest population pressure is on the mountain forests of the lakes countries: Rwanda, Burundi, Uganda, and eastern Zaire (Kivu), whose forests are already severely depleted. Low population in the Zaire Basin countries (Gabon, Congo, and Zaire have only 38 million people in total), and alternative sources of foreign exchange in Zaire and Congo (minerals), have helped to contain exploitation of forest stocks in the past. But this is now changing, and in the 1980s, largely in response to foreign investment, rates of deforestation increased in both Congo and Gabon by 100 per cent, and Zaire by 50 per cent. Zaire is now one of the 10 countries in the world that is losing more than 4,000 sq km of forest each year; although this is only 0.4 per cent of the country's total rainforest, the rate of destruction is incremental, and ecologists forecast that by the year 2050 the rainforest in Zaire, as elsewhere, will have largely vanished (Myers 1989).

### **2.3 Agents of deforestation**

There are widely diverging views on the causes of global forest destruction, but they can be divided broadly into two camps: those who cite 'root causes' such as impoverishment

and exploitative social, economic, and political relations for the crisis, and those who (in the words of the first camp) 'blame the victims' — essentially the masses of small farmers invading the forests. Both camps agree that the problem of deforestation is chronic, though they differ about the solutions.

The 'victim-blaming' camp, which includes many national governments, bilateral funding agencies, international timber trading associations, and the more opportunist conservationists, believes that there is a technical package that can be brought to bear on the problem. Key concepts are (on the one hand) sustainable exploitation of forests identified as potentially productive, and (on the other hand) conservation of areas considered crucial to the survival of biological diversity. This approach, enshrined in the World Bank/FAO Tropical Forest Action Plan (see section 3.2), assumes that tropical timber is a renewable resource that can and should be exploited to the benefit of the countries in possession of forests. According to this view, the real threat to tropical forests comes from the subsistence activities of mushrooming populations and their demands on the forest such as land, construction materials, game, and firewood.

The 'root-cause' camp, comprising ecologists, organised associations of forest dwellers, and the NGOs that support them, take the view that forest destruction is part of a worldwide problem that has its roots in an unjust economic order that forces developing countries to exploit their natural resources in order to meet debt repayments and address increasingly unfavourable terms of trade. The root causes are seen as unequal land tenure, the impoverishment of rural populations, and their lack of control over policies directly affecting them; the symptoms are populations on the move for new land and resources. According to this view, extractive forest industries, of which logging is the prime example, not only do not solve the problem but actually exacerbate it. Large-scale industrial operations concentrate capital and decision-making far from the local level, which is where solutions need to be sought. This view calls for radical reassessment of the causes of deforestation, rather than palliatives that address the symptoms. The rest of this section will look at how these contrasting positions affect the Zaire Basin and surrounding countries.

### *The logging industry*

Until recently the Zaire Basin was relatively untouched by logging industries. Plantations replaced the initial colonial focus on extraction of forest materials; coffee, cocoa, and cotton were among the cash crops exploited on an industrial basis. Compared with Latin America and the Far East, lack of communications and investment capacity, an undeveloped industrial economy, and a poor infrastructure were significant factors in protecting the forests; disease may also have played a role in maintaining population levels at a low level and discouraging intensive colonisation. Certainly the better-developed fringes of the area — Ivory Coast and Cameroon, particularly — were able to make early inroads on their forests. In 1973 Ivory Coast gained 33 per cent of its export returns from a timber industry that made the country the largest timber exporter in Africa, and the fifth largest in the world, with an annual output of 3.5 million cubic metres. Today, however, according to Professor Hans Lamprecht of the University of Gottingen, 'the forest industry of Côte d'Ivoire is on the verge of ruin — the forests have been plundered, and 70 per cent of the forest already destroyed' (Colchester 1990). If investment funds become widely available, there is little room for optimism that governments of the core area of the Zaire Basin will be able to resist the temptation of following this road to 'development' — in spite of the evident dangers. The report of a recent visit by the anthropologist Justin Kenrick (1990),

combined with a 1989 assessment by Friends of the Earth of worldwide deforestation (Myers 1989) enables us to assess the situation in four countries of the Zaire Basin:

*Central African Republic:* As elsewhere in francophone Africa, French efforts to exploit the forest for logging are intensive, and they are associated with road construction projects. Altogether 90 per cent of the CAR forests have been awarded in concession to mostly European companies. In spite of these activities, the World Bank sees CAR (along with Madagascar and Guinea) as among the African countries most committed to conservation (*Africa Analysis* 25.1.91).

Of Congo's original 100,000 sq km of forest, 10,000 sq km are being deforested at a rate of 700 sq km per annum. The country's largest logging operation, funded by the World Bank south of Ouessou, exports 75,000 cubic metres of logs a year. To counterbalance its logging activities, the World Bank is pressing the country to allocate 40,000 sq km as a conservation area bordering other parks in CAR and Cameroon. Congo's mineral resources should allow it to take a much less aggressive policy towards its surviving forest.

*Cameroon,* which in 1990 alone allocated more than 600,000 hectares of virgin forest in concession to mostly foreign lumber interests, is assessed by the World Bank 'as the most obsessively focused on all-out logging' (*Africa Analysis*, op. cit.). In the absence of any other significant foreign-exchange earner, the country is forced to turn to the forest to meet debt repayments and generate income to climb out of the current economic crisis. Active road-building has opened up the virgin forests of the west, exposing yet more of Cameroon's 475,442 sq km of forest. This is going at the rate of 2,000 sq km per annum, with the assistance of over a dozen French, Dutch, and German companies.

*Zaire,* in environmental terms the crucial country for conservation of a significant proportion of the Zaire Basin, is also the country that has done least to make an accurate assessment of its forest estate. Because of the country's economic bankruptcy, it is also likely to be all too willing to exploit its forest reserves; agricultural alternatives such as coffee and palm oil are in decay. Zaire's reserves, as Myers (1989) points out, are far from negligible: 'as much as 60 per cent of the forests are considered to be loggable. Whereas only half a million cubic meters of timber were cut, with 150,000 cubic meters exported, in 1984, the government aims to increase this volume to 6 million cubic meters, with 5 million cubic meters exported by the year 2000'.

The Zairean government is conscious that 70 per cent of its forestry production is consumed locally, and that current wood exports valued at US\$ 20 million amount to only 1 per cent of GNP (6 per cent of foreign-currency earnings). To achieve its expansion target, it hopes to tap into the World Bank funds currently available for Tropical Forestry Action Plans. The proposed Zairean National Forestry Action Plan would cost, over five years, US \$227.75 million, divided about equally between conservation and industrial objectives (République de Zaire 1990).

The main focus of the plan is the undeveloped central forest of Equateur and Haut Zaire (the heart of the Zaire Basin), currently producing 267,000 cubic metres between them (53.4 per cent of the total). The bulk of the remainder comes from the western Bas Zaire and Bandundu regions, the former of which currently over-produces because of its favoured position near the port of Matadi and its proximity to the market of Kinshasa. The eastern Kivu region produces 8,000 cubic metres (1.6 per cent) for export, principally to Rwanda and Uganda.

Concessions for the development of logging in Haut Zaire and Equateur will almost certainly go to foreign companies with the capital to meet the considerable costs of extraction. In the central forest of Haut Zaire 11 Belgian, Italian, and principally German companies exploit 1,940,000 hectares under 25-year 'Guarantees of Provision' obtainable in exchange for payment into regional reforestation funds. However, across the country 22 million hectares (20 per cent of the area of the central forest) is tied up under letters of intent and guarantees of provision, many of them obtained for speculation. Zairean sleeping partners will gain windfall opportunities as they find clients for forests to which they have acquired rights. Some high-level government figures stand to gain, including one who has a personal stake in the German company Société Industrielle Forestière Zaire-Allemande (Siforzal) of the Danzer group, whose concessions, including 700,000 hectares near Kisangani, account for 40 per cent of national production of logs.

### *Methods of exploitation*

Throughout Central Africa, selective logging is favoured over clear-felling. One reason is that clear-felling on a large scale is usually undertaken only where cattle-raising is an option; in Central Africa control of tse-tse, the vector of sleeping sickness (Trypanosomiasis), would require the clearing of larger areas than is currently feasible. However, even selective logging is extremely wasteful: the sought-after hardwood species are widely dispersed and need to be reached by heavy machinery. In Cameroon, where Kenrick reports one or two high-grade trees per hectare (10-15 cubic metres), 'an optimistic assessment of the area clearfelled in the process would be about 10 per cent' (Kenrick 1990). In parts of Zaire, 'every one tree cut for commercial timber entails the cutting of 25 other trees for road-building' (Myers 1989). Typically a grid is cut through the concession and logs hauled out for processing in saw-mills, or for rafting downstream for processing and export. Zairean operations in the central forest rely primarily on navigable rivers, in contrast to the need in Cameroon and Congo to invest heavily in road infrastructure. According to a source quoted by Kenrick, in Cameroon 'logging is now so intensive that trucks ... from over a dozen French, Dutch and German companies ... are only allowed to travel the major Cameroonian highway overnight, to ease congestion (Kenrick 1990).

Concessionary rights are now giving way to alternative legal frameworks of exploitation in the region. In Congo concessions have become Unités Forestières d'Amenagement or Forest Management Units, and in 1984 Zaire replaced its own system of forestry concessions with the Garantie d'Approvisionnement, which is a renewable guarantee for the provision of raw materials for industrial logging operations; its aim is to attract foreign investment and rationalise the national lumber industry. However, in Zaire the attempt to rationalise logging operations has done little to ensure better financial administration. The reforestation tax of 25 Zaires (4.5 US cents) per cubic metre of timber rarely returns to the region to pay the local forestry service's costs — so the vital work of monitoring the logging and replanting of trees is never done. As for the general tax of 350 Zaires (63 US cents) per hectare ceded in Garantie, another source in Kenrick's report has estimated that Siforzal is paying the Zairean government less than US \$10,000 per annum for exports worth US\$16 million from its 270,000-hectare Lokoko concession. The Zairean government itself acknowledges that it receives 1/27th of the fiscal revenue it expects from wood exports (TFAP 1990). Since in Zaire the forestry industry only generates 15,000 unskilled jobs, it could well be accused of selling off the family silver for a pittance.

### *Effects of logging operations*

Apart from the immediate effect on the forests of logging operations — extraction and collateral damage — the industry also, and possibly more damagingly, acts as the spearhead of colonisation into previously untouched areas of forest. The labour force attracted to the concessions starts the process by establishing fields in order to feed their families, and logging roads also give access to other cultivators attracted to the concessions by the economic activity of the camps. On a wider scale, roads opened to the concession areas attract migrants from far afield. Knowing that their concessions will be overrun by agriculturalists, loggers plan on a single cut in a given area, rather than on progressive cuts spread over a period of years and associated with reforestation measures. These government conditions for allocation of a concession, which have long-term sustainable extraction as their aim, are almost universally flouted. Any good intentions to harvest the wood sustainably, or to reforest, are effectively torpedoed by the invasion of concessions. As a result of the combined effects of logging and colonisation, ecologists such as Robert Repetto of the World Resources Institute (quoted in Colchester 1990) make an impressive case for ranking the industry as the 'top agent of deforestation'.

As to the effects on hunter-gatherers in the Zaire Basin, Kenrick reports that the 'largest immediate problem for the Aka in southern Central African Republic and northern Congo is the rapid construction of logging roads throughout the region leading to the destruction and opening up of the forest' (1990). A significant number of the 8,000-10,000 Aka have become engaged in providing large amounts of meat for the logging camps and their followers; as well as rapidly depleting game, cash exchanges with the newcomers interrupt a normally stable trade in meat for starch foods. The influx of cash often means that the Aka invest in drink and cannabis to a far greater degree than usual, and the constant availability of luxury goods encourages them to settle more permanently around the logging camps. Even after the logging camps have moved on, the Aka often stay behind, having adjusted to the new way of life. Similar problems are reported for the Baka in Cameroon. In Zaire the Batua of Lake Tumba are directly affected by logging operations in Equateur, one of the two regions that will bear the brunt of the planned ten-fold increase in extraction before the year 2000. In Haut Zaire, also earmarked for a substantial increase in production, the main operations are concentrated west of Kisangani, where there is no Pygmy population and the immediate effects of logging will likely be limited to a gradually increasing movement of cultivators in the wake of the concessionaries. Farther eastwards smaller-scale exploitation at Bafwasende and Bafwabalinga falls just short of the Ituri forest, where prized timber is rarer, although speculation is already reported in anticipation of the need to exploit more common timber (Kenrick). As will be seen next, the Mbuti of the Ituri face a threat posed by the other major agent of deforestation in Zaire: migrating subsistence farmers.

### *Subsistence agriculture*

The type of shifting agriculture described earlier (see 1.5) and practised widely in forest and savannah regions until 30 years ago has given way to a far more damaging worldwide phenomenon for which Myers has coined the phrase 'shifted' agriculture. Pushed out of their original farmlands by a whole range of factors including population growth, poverty, inadequate rural development, and maldistribution of lands, these dispossessed farmers descend in droves to the more sparsely occupied forests. Once there, they settle along the roads that brought them, clearing tracts of forest that can sustain their subsistence needs. Generally tied closer into the market economy than the original forest

subsistence dwellers, they establish larger farms, a greater proportion of which is devoted to cash crops. A road-side economy springs up, with relatively intensive commercial activity and specialisation in services such as transport and catering which eclipses the more pedestrian local economy. The viability of local long-fallow land use is quickly undermined by land shortages. Customary and national land laws come into conflict, and land tenure becomes the cause of ethnic violence.

In the Zaire Basin, the Kivu region of Zaire offers the clearest example of a process that is becoming increasingly common throughout Central Africa. Cultivators have been losing their lands over 100 years under progressive changes in land tenure that conspire to dispossess the clan as traditional landowner in favour of an elite with close ties to the political administration. No longer sure of their rights to occupancy, farmers neglect the long-term care of their lands. Land shortages combine with new land-tenancy structures to drive them out of the area, westwards towards the forest. Roads from north and south Kivu funnel shifted cultivators down from the highlands on to the main westward-leading thoroughfare, the Zaire link of the Trans-African Highway passing Bunia and Mambasa. As elsewhere, the Pygmies are increasingly drawn into the exciting new world of the immigrants, serving initially as hunters before being reduced to dependent day-labourers and eventually being dispossessed altogether.

Overall Myers concludes that shifted cultivators of this type provoke well over half of world-wide deforestation. Lohman and Colchester rate the invasion of forest opened up to development by landless or displaced settlers as 'the single most important immediate cause of deforestation'. 'Shifted' cultivator populations tend to increase over and above the national averages, and their needs in fuelwood alone are immense. While seeing little possibility of a solution, short of a radical reform of national and international development options, Myers cautions against allocating blame, since the 'shifted cultivator' is no more responsible for the situation than a soldier is for war. 'He reflects a failure of development strategies overall, and his problem can be confronted only by a major restructuring of policies on the part of governments and international aid agencies concerned. Without an integrated effort of sufficient scope, there is every prospect that we shall witness the demise of most tropical forests within a few decades' (Myers 1989).

### *Industrial agriculture*

Coffee, cocoa, cotton, oil palm, and (to a lesser extent) rubber, cattle, and quinine dominated plantation agriculture after the early extractive period of the Zaire Basin's colonial economy. In Zaire itself, forest products were all but exhausted by the second decade of the century. The colonial authorities reacted by converting extractive concessions into rights over land for plantation agriculture, thus for instance originating the Lever Brothers oil palm plantations, which began their operations by exploiting villagers' existing trees, before establishing their own plantations in the 1920s. But although the plantation system's need for labour seriously disrupted the local economy throughout the region — high-population density areas such as Kivu apart — the impact on the forest itself was relatively slight. In the early 1970s foreign investors suffered a blow with the 'Zaireanisation' of plantations, under which foreign assets were nationalised. In recent years unfavourable prices for coffee and cocoa have further undermined the attraction of plantation agriculture, and the current picture is of industrial enterprises closing down or diversifying. In the Isiro region of Haut Zaire the regional economy was based on cotton and coffee until 1989, when low prices cut coffee production from 14,000 to 4,000 tons.

In Kivu, rather than establish industrial plantations or large private estates in European hands, the Belgian colony introduced a system of small planters whereby retired soldiers and colonial officials were allocated 'vacant' lands in order to exploit farms of 50-100 hectares for high-grade Arabica coffee. European smallholders grew to 1,000 in number by 1959, but were reduced to fewer than 50 by 1973. This was partly due to the new republic's neglect of agricultural investment, but primarily to 'Zaireanisation'. The failure of 'Zaireanisation' led to the creation of a small number of agro-industrial enterprises jointly run by foreign and national capital. Hence the Domain of Katala, which increased in size from a few hundred hectares to 3,000 hectares, by virtue of a monopoly on the export of coffee awarded in exchange for a stake in the company by President Mobutu. Similarly Pharmakina, a subsidiary of Bayer, received a State monopoly in the processing and production of quinine, forcing small cinchona plantations to sell out. Latterly ranching has become an attractive investment, owing to cheap credit, provision by development projects of veterinary care, and access by air to the Kinshasa market. The concentration of land in agro-industrial complexes in Kivu has become an important factor in driving displaced farmers to the Ituri forest (Fairhead 1989).

Thus, though the direct effect on the forest of agro-industry has been relatively slight, its growing tendency to accumulate land in areas of high population has a 'push' effect on shifted cultivators that complements the 'pull' effect of the much larger logging enterprises.

#### *Roads and railways*

Communications are crucial for the opening up of the Zaire Basin to development, and large-scale infrastructural programmes in the region have either been completed in recent years or are projected. The Trans-African Highway, which links Mambasa in Kenya with the waterways of the Zaire river, traverses the equatorial forest and was completed in the 1980s. The highway provides ready access for the westward migration of shifted cultivators. A connecting link with the Central African Republic has also been established. In Gabon the recent completion of the Libreville to Francville railway (with World Bank funding) has opened previously inaccessible forests to logging. Foreign logging companies are capitalising on this, and it is estimated that in 10-15 years 70 per cent of the country's virgin forest will have been logged (Beazley 1990). In its bid to become Africa's biggest exporter of forestry products within a decade, Cameroon hopes to obtain (through funders of the Tropical Forestry Action Plan) the means to drive a 600 km road from the Atlantic to open up the untouched forests of the south and south-east of the country (Lohmann and Colchester 1990). Where there are new roads, colonists will inevitably follow, partly at least because agricultural development in Central Africa since colonial times has required villages to locate themselves along highways (the strip colonisation pattern adopted also in recent years in South America) for reasons of administrative control, rather than adopt patterns more harmonious with resources.

#### *Wood fuel*

The FAO calculates that 85 per cent of tropical forest wood worldwide is used for fuel as opposed to 9 per cent for local timber and only 5 per cent for export (Goodland *et al.* 1990). Further it estimates that 2,000 million people depend on wood fuels as their main or sole source of energy (World Rainforest Movement 1989). Although the conversion of trees into fuel is evidently an environmental problem on a massive scale, blaming firewood collection is, as Earth Resources Limited notes (in WRM 1989), a 'grossly oversimplified view of the

causes of why forests are being exploited ... Firewood gathering first affects open forests and fallows located near centres of population and is not the main cause of tree losses in most closed forests, which are usually those of the greatest ecological and environmental importance'. The Brundtland Commission also doubts that the rural poor can be blamed as the chief exploiters of firewood collection: 'the fuelwood crisis and deforestation — although related — are not the same problems. Wood fuels destined for urban and industrial consumers do tend to come from forests. But only a small proportion of that used by the rural poor comes from forests. Even in these cases, villagers rarely chop down trees: most collect dead branches or cut them from trees' (WRM 1989).

In Zaire charcoal destined for urban consumption is an important income-generating activity for subsistence farmers. Typically, a town of around half a million will be supplied by charcoal burners operating within a radius of 30 km of the town, who transport their wares themselves, and by truckers who scour a much wider area. Either way the farmers are not the cause of the problem: they are merely responding to high urban demand. If fault is to be attributed, it should be placed at the door of government departments that fail to encourage reforestation in line with firewood needs. Zaire's Tropical Forest Action Plan, for instance, includes a five-year project costing US \$1,500,000 to supply 20 per cent of Kinshasa's charcoal needs with fuel from the forests of Bandundu and Equateur (République de Zaire 1990).

### *Population*

Associated with the 'shifted cultivator' phenomenon, population pressure is also cited as a major agent of deforestation worldwide. It is indisputable that populations are increasing exponentially and that these increases pose a continuing threat to the carrying capacity of existing agricultural lands under present systems. As Robert Goodland of the World Bank points out: 'human populations averaging 2.4 per cent annual increase in tropical moist forest countries are projected to double in 29 years and balloon more than 8 times in 90 years' (Goodland et al. 1990). However, to blame overpopulation as the single greatest cause of tropical forest destruction, according to the World Rainforest Movement, 'begs many questions, since the environment impact of rising human populations is largely determined by political and economic factors. For example, millions of acres of the best agriculture land in the Third World are used to grow cash crops, thus forcing the landless onto more and more marginal land' (WRM 1989). As with the problems of shifted agriculture and firewood collection, the linkages are more complex than appear at first sight. For instance, population pressure is not uniform: while Zaire's population of 33.5 million, for example, is growing at the higher than average (quoted above) figure of 3.1 per cent, the overall population density is low, and pressures are felt only in such areas as Kivu, where, as we have seen, other factors are at work provoking deforestation.

## **2.4 Root causes of deforestation**

The Central African forests are evidently in danger. Urgent efforts are required to alleviate the environmental problems resulting from increasing population and people's needs of land and fuel. There is, however, a temptation to create scapegoats, and there is an even greater need to identify correctly the underlying causes of forest loss. As already stated, analysis leads on to action, and faulty analysis will inevitably lead to ineffective solutions.

We will now return to the arguments put forward by the two camps in 2.3 above. Having looked at some of the arguments put forward by the 'victim-blaming' camp, we will see what the 'root-causes' camp has to say.

### *The economic environment*

The root-causes camp shares the stated objectives of the official camp in that they both wish to avoid the destruction of the forest and yet create a favourable climate for development. But whereas the official view regards industrial exploitation of tropical forest as a sound means of achieving this, the root-causes camp questions the official development paradigm and links forest destruction with the creation of poverty. In response to environmentalist pressures, the European Parliament has reviewed root-cause arguments and concluded as follows, in a document recommending restrictions on imports of tropical timber:

— More money flows out of tropical countries, principally through debt servicing, than enters in official development aid and loans from private banks. Pressures of debt repayments and structural adjustment programmes are accelerating the rate of forest destruction, and exacerbating the situation of the poorest.

— Foreign-exchange earnings derived from lumber principally benefit national elites or foreign businesses, or are used to repay foreign debt; the economic value of timber exports is felt internationally or nationally rather than locally. Earnings are neither recycled back to the local level nor used to combat poverty. The economic value of timber exports is wildly over-estimated, partly because environmental and social costs are not included in the calculation. In view of the evidence presented to it, the European Parliament Committee on Development and Cooperation on the conservation of tropical forests felt 'bound to conclude ... that forestry development and deforestation generally go hand in hand with the redistribution of wealth from the poorest and local communities to a national elite and foreign companies. Deforestation widens the gap between the rich and poor in tropical countries, and the gulf between the Southern and Northern Hemispheres simply puts more pressure on tropical forest resources' (European Parliament, September 1990).

### *Land tenure*

'Root-causes' analysis identifies poor farmers' lack of access to the land and inequalities in land distribution and its use as the main reasons for deforestation. Associated with them are other pressures to migrate towards the forest 'brought about by dam schemes, plantations, export-orientated cash-cropping and other development projects' (Lohman and Colchester 1990). In Cameroon for instance, where shifted agriculturalists are as ready as anywhere to follow logging roads into the forest, current development plans make no provision for the existing population of Aka hunter-gatherers and Bantu villagers when their lands come under pressure. Indeed it is difficult to see how legal provisions could be made, given that customary rights to tribal lands are not officially recognised. As in Zaire, where customary rights co-exist with (but in subordination to) possession by the State of all national territory, the government is able to award concessions for plantations or logging enterprises and create national parks at will.

Such a fluid legal situation creates difficulties for the poor and opportunities for the rich at every level of land-holding. In Kivu, an important area of out-migration, the application

of customary rights has been so subordinated to the needs of a series of local rulers that it binds ordinary farmers in feudal subjection. In such circumstances, reclaiming 'inherited' rights is often a partisan political issue favouring the elite; rather than assure clan members adequate land for farming, it facilitates eviction and forces them to seek 'free' lands in the forest (Fairhead 1989). On arrival in the forest the colonists avail themselves, at the inhabitants' expense, of the legal disposition that all citizens of Zaire have equal access to lands throughout the territory. Finding themselves growing short of land, the original farmers dispossess in turn their Pygmy clients, who least of all have any recourse to legal protection since they form no part of customary law, yet are not in a position to avail themselves of liberalised State laws.

Appraising the shortcomings of the Zairean land-tenure system as it applies to Kivu, the agricultural anthropologist James Fairhead concludes that while feudalism was abolished (in the 1984 'agrarian reform programme' for Kivu) with the intention of liberating 3,000,000 peasants, the State was powerless to enforce legislation running against the interest of local chiefs. Furthermore the abolition of feudalism 'means in practice that those with power, wealth and influence (from anywhere in Zaire) are now more able than ever to manipulate the land grant system ... It has not protected the rural poor, but rather has advantaged the State elite over the traditional one'. The only answer lies in enforceable complementary legislation governing community land holdings. It has yet to be written.

## **2.5 Conclusion**

On the evidence presented, it is clear there is a major effort to 'open up' Africa's equatorial forest. The motives have to do with profits to meet debt repayments and to fuel further development. The environmental and social costs are foreseeable; as in Amazonia and south-east Asia, the destruction of the forest will cause an increase in poverty rather than its resolution. The poorest of the poor will suffer the most, and, if unchecked, the 'opening up' of the Zaire Basin will inevitably result in destroying the Pygmies economically, and physically in the long run, as well as destabilising the essentially sustainable forest economy of local cultivators. None of this is inevitable: governments wishing to avoid forest loss and the dissipation of non-renewable national resources have a variety of options (see the following section). In adopting these they also need to look carefully at the social inequalities that provoke forest destruction; this will concern them as a priority with land rights and new legislation.

## **3 DEVELOPMENT**

### **3.1 Introduction**

The first two sections of this report have described in outline the major characteristics of the Central African forest and the ways in which different populations put it to use. We have seen that decisions affecting the forest have been taken, for at least a hundred years, far from the forest itself: its future and the destinies of the people who inhabit it are now firmly bound to economic decisions adopted nationally and internationally. Current policies agreed in this way are accelerating pressures to destroy the forest and radically alter the way of life of its inhabitants. The most vulnerable are those who depend most entirely for their own survival on the survival of the forest itself — the hunter-gatherers.

This section will look specifically at current development options for the region, starting with the official approach of national governments and their international backers. Their approach is integrated insofar as it covers a variety of options destined to promote the 'rational exploitation' of the region through: logging to produce revenue; conservation measures to ensure sustainability and biological diversity; and integration to include the population in the process. This survey of the official line will be accompanied by the major criticisms of those non-governmental organisations that consider the official line inadequate to the challenge presented by the threatened destruction of a large and important area of tropical forest. The second part of the section will turn to the experience gained by NGOs working directly with hunters and gatherers in the region, reviewing successes and failures with a view to prioritising the needs of hunter-gatherers. The third and final part will assess the possibilities of taking those needs forward into action.

It is a sad truth that hunter-gatherers have been given little or no opportunity to contribute to discussion concerning their territories, or indeed their own futures within them. Until this regrettable shortcoming is made good, it is unlikely that strategies of lasting benefit to themselves or their forests will emerge. Open and respectful dialogue with hunters and gatherers themselves, in order to learn from them their own priorities, is therefore the single most important precondition of all development options.

### **3.2 The official line**

As far as the forest is concerned, the primary concern of governments in the Zaire Basin is to take advantage of the enormous wealth tied up in their timber reserves. In this ambition they are following the example of their colonial predecessors who initiated the equatorial forest into the world economy. However, some countries have been slower in taking up their forest options than others; they have either lacked the means or had alternative, more accessible, ways of generating income. In recent years indebtedness has focused attention on the forest, and international finance has made large-scale extraction possible. At the same time, the growth of a powerful environment lobby in the donor nations of the industrial North has complicated the apparently simple solution of using

forest timber to pay off existing debts and fund future development. In 1985 the Tropical Forest Action Plan (TFAP) was launched by the UN Food and Agricultural Organisation (FAO) in association with the World Bank, UNDP, and the World Resources Institute as 'a middle way between logging and forestry conservation' (*Africa Analysis* 25.1.91). Developers who thought they had struck a reasonable compromise were surprised to find the plan opposed by another vocal lobby, defending not only the environment but also the priority rights of indigenous peoples to exploit their traditional territories. Opponents of the TFAP and its national programmes (NFAPs) contend that they vastly increase the scale of forestry extraction at the expense of local populations.

### *Logging*

The TFAP was not initially designed to open up vast new areas of forest to logging, and out of its five objectives only one directly concerns the development of a sustainable logging industry. The others are meeting fuelwood needs, developing forestry in land use, conserving forest species and ecosystems, and building national-level knowledge and expertise in forest management. But close examination of the National Forestry Action Plans prepared for presentation to the funders (the world development banks and the overseas development agencies of the industrialised nations) reveals either that investment is distorted in favour of the logging industry as against conservation; or that investment is approximately balanced (as in Zaire), but the overall effect is vastly to increase forestry production. The Cameroon NFAP, for instance, calls for a doubling of log production to 4 million cubic metres annually by 2000, and Zaire's plan expects a ten-fold increase to 6 million cubic metres annually, even though investments at 43 per cent for conservation and 57 per cent for forestry production and associated components are approximately equal. The Central African Republic, as we have seen, intends to cap them both by becoming Africa's largest exporter of logs by the second millennium.

The justification of TFAP investment in logging (US\$8 billion were pledged in 1985) was the creation of sustainable industries that could not only feed the world demand for tropical timber, but assure steady and much-needed revenues. However, even the International Tropical Timber Organization (the body that administers the 1983 UNCTAD-mediated commodity agreement for timber) accepts that 'the extent of tropical moist forest which is being deliberately managed at an operational scale for the sustained production of timber is, on a world scale, negligible' (Poore 1989). In Section 2 we saw how shifted cultivators following in the wake of commercial loggers and settling in their concessions made forest management impossible.

But the real problem of TFAP, which recurs in all parts of its integrated programme of logging, conservation, and fuelwood reforestation, is that it does not address, for fear of alienating subscribing governments, the problems of land tenure and voicelessness of ordinary people. It is this failing, coming on top of the *de facto* priority emphasis on logging, that has persuaded lobbyists like the World Rainforest Movement that 'even for international organisations to do nothing would be a strategy superior to that of backing TFAP ... Hopes that TFAP can be reformed are unrealistic and environmentalists should now be concentrating their energies on supporting the struggles of those who rely on the forests' (Lohman and Colchester 1990). Even relatively favourable observers such as Mitchell Beazley, who welcomed the TFAP as overdue official recognition of the seriousness of the deforestation problem, acknowledge that 'By the year 2000 the TFAP will have either made significant steps towards saving the rainforests for future generations, or it will have fuelled a disaster of global proportions' (Beazley 1990).

## *Conservation*

In order to offset the effects of large-scale logging in the equatorial forest, the World Bank and other funders are actively encouraging, through TFAP, environmental management plans that include the creation of national parks throughout the region; watershed management and reforestation programmes; and complementary projects such as improved production and burning of charcoal. Financial incentives to adopt an environmentalist stance are brought to bear on countries too willing to sell their forest birthright; for instance the World Bank has offered Cameroon a unique package of 100 per cent compensation for lost revenues if it tightens up on logging (*Africa Analysis*, January 1991). In Congo it is insisting on the creation of 40,000 sq km of park in exchange for the cash to rehabilitate the Brazzaville-to-Pointe Noire railway (which will facilitate the export of logs); and in Central African Republic it supports the Ozangha-Sanga National Park which is contiguous with both the Congo reserve and a protection zone proposed in Cameroon. Zaire's NFAP calls for US\$ 1 million for the creation of the Okapi National Park in the Ituri Forest, and the World Bank has already offered the same amount for management of the million hectares of the Maiko National Park. In case there is any doubt that conservation is big business in Central Africa, the region is also host to an EC programme, designed by the International Union for the Conservation of Nature, for the conservation and sustained use of forest ecosystems in 100 locations.

However, critics of TFAP strategy point to its flawed logic in boosting logging on the one hand and conservation on the other; neither parks nor logging concessions will prevent incursions by shifted cultivators, so long as the conditions that put them on the road in the first place are not met. Furthermore, parks provoke upheavals at the local level: the objective of conservation zones is to protect their biological diversity, and the method most often employed is to exclude the human population — by force if necessary, and while conservationists are beginning to recognise that the population needs to be part of the park-creating process, the population's role is generally kept to a minimum. In Congo, for instance, while the Pygmies' traditional knowledge will be used in the buffer zone around the Odzala National Park, the core area will remain sealed, and rights to the park itself will be vested in the Park rather than in the Pygmies. Similarly, the Okapi National Park, which originally excluded all hunting within its boundaries, was forced to condone Mbuti foraging through inability to control them, and now employs Pygmies to track and capture okapi. However, these modest advances are exceptions to the rule of forceful eviction; the fate of Batwa evicted from the proposed Bwindi ('Impenetrable Forest') National Park of Uganda (where only 3 per cent of forest remains intact) is a case in point (see 1.5). The Korup National Park in Cameroon required the existing population to abandon the area, only to find poachers from Nigeria taking advantage of the vacant hunting lands (Kenrick 1990). 1973 conservation legislation in Rwanda is so all-encompassing that it has made hunting and gathering impossible not just in national parks, but throughout the country. Similar prohibitions on possession of arms (including bows and arrows) and on gathering wild products have rendered hunting and gathering illegal in Burundi (de Carolis 1977).

The sealing off of areas from human exploitation is yet another example of treating symptoms rather than causes. As such it can only aggravate hardship and, in the last resort, be ineffective. This is not to say that the interests of the local population and conservation cannot coincide: since both depend on the continued existence of the forest, there is an obvious point of convergence. However, conservation planners need to acknowledge that their record so far has done little to inspire confidence among the varied

peoples affected by the single-minded haste to protect biological diversity, and that 'local consultation' as a feature of planning all too often means little more than informing people of official decisions. Conservationists need to accept that their aims are best achieved by vesting land rights firmly with the populations concerned (see 3.4 below). This would be a minimum condition for a partnership of interests. For this to happen, the States involved would need to acknowledge that problems of land shortage are due to inequalities in land tenure rather than shortages *per se*, and need to be addressed through legislation leading to land rights held by particular communities.

### *Integration*

National policies such as restrictions on free use of forests have affected both cultivators and Pygmies, but they have had devastating effects on hunters and gatherers, who depend entirely for survival on their access to the forest. However, the effects on Pygmies are rarely considered when the policies are formulated. Governments, on the rare occasions that they consider their hunter-gatherer populations, have been much more concerned with their status and level of integration into national life than with respect for their traditional means of subsistence and their territorial rights. Conscious that inequalities between Bantu cultivators and Pygmy hunter-gatherers are potentially emotive, and sensitive to accusations of ethnic discrimination, the tendency is to deny their separateness and assume that the right social measures can rapidly integrate hunters and gatherers into the mainstream of national life. Integration efforts start by officially 'emancipating' Pygmies from their obligations to villagers, while at the same time promoting sedentarisation and the conversion from hunting to agriculture or salaried work. Education is a key component of acculturation, on the grounds that even if the parents cannot be readily assimilated, the children will prove more pliable if they are reached early enough. Efforts made so far in the Republics of Rwanda, Zaire, and (to a lesser extent) Cameroon are no more promising than similar efforts by their former colonial administrations.

Though it has run into financial problems, the official Baka resettlement programme aims to liberate the Pygmies from exploitation and marginalisation by introducing them, under the auspices of the government, to farming; by providing citizenship papers; and by ensuring access to public services (schools, health, and agricultural extension). The government of Cameroon, which coordinates the work through the Ministry of Social and Feminine Affairs, is neither insensitive nor closed to suggestions. Students of anthropology in Cameroon were invited to submit preparatory studies on the programme, and some of these have openly questioned whether the government, despite the best of intentions, is not after all merely repeating colonial history in its efforts at integrating the Pygmies (Bahuchet 1987). Foreigners are often associated with fieldwork, and in the Lomie region Dutch volunteers describe their and the government's strategy as 'supporting the Baka in their own environment so they can survive modernity while preserving their traditions' (Willot 1989). A similar approach by the Zairean government in 1971 had little lasting effect, as the Mbuti were able to return to the forest once the novelty had worn off.

In the case of Rwanda, dispossession is a *fait accompli* and the government has, since the 1976 creation of the Service for the Promotion of the Batwa, occupied itself with serious efforts to integrate Batwa children into the school system. A pilot education programme started in 1976 for the 2,200 Batwa hunters and potters of Gisenyi who had been separated from their lands by tea and pyrethrum plantations in the 1970s. Its effects were

evaluated ten years later. In spite of free education and an exemption from wearing expensive uniforms, it appeared that only 10 per cent of Batwa children had reached the eighth year of primary school. As a result only 3 per cent of Batwa children were literate. The report concluded that Batwa were discouraged by the distance between their camps and the schools and by the indifference of their parents (Musilikare 1989). But the Batwa had decided for themselves that education alone would not help them overcome their marginal status.

The results of the considerable efforts of the Rwandan government are a clear indication that the problems of landless and marginalised peoples go beyond tinkering with the education system. In a visit in 1987 to Gisenyi, the President remarked: 'It is deplorable that during the 25 years since independence we have occupied ourselves continually with the gorillas of the volcanos without a preoccupation for the Impunyu (Batwa) who live like them in the forests of Gishwati and Nyungwe' (Musilikare 1989). The fact is that, unlike the Batwa, the gorillas to some extent enjoy protected rights to their lands; all the Pygmies are offered is improved schooling. As will be seen in the next section, the misinterpretation of Pygmy needs renders most development efforts on their behalf ineffective. Ultimately their only real hope lies in control and ownership of their forests.

### **3.3 The non-government experience**

Approximately three dozen Catholic missions, spread over five Central African republics, have been working for between five and twenty years with the major hunter-gatherer groups of the region. In 1987 representatives of these missions held a meeting in Yaounde, Cameroon in order to share experiences and take advantage of professional advice concerning their work. Paul Willot, a Belgian development consultant specialising in assisted self-evaluation, was assigned the task of coordination, while Serge Bahuchet of the Centre National de Recherche Scientifique (CNRS) provided the professional anthropological input. The meeting was repeated in 1989 in Kinshasa, and a third was planned for the Central African Republic in 1991. The participants are wary of publicity, conscious perhaps that their activities in the field could be open to unfavourable comment. However, the conferences bring together a wide range of experience concerning the particular problems of hunter-gatherers, and the mission's experiences provide a useful basis for the analysis of the development options confronting Pygmies in Central Africa. Although paternalism and the creation of dependence are real dangers, the personnel of long-established missions are often well-placed to know and understand the social environment of the Pygmies. It is also true that many Pygmy populations are acutely in need of basic medical and nutritional assistance, as well as protection against the worst forms of personal abuse. Without concerned individuals on the spot, these needs would pass unnoticed.

In analysing the mission approach, Bahuchet distinguishes two main strategies: sedentarisation in pilot villages along the lines of the Zairean government experience, and 'itinerant animation' that takes into account the dual forest-village lives of hunter-gatherers. With some exceptions, both strategies largely accept the inevitability of integration into modern society, and seek to provide preferential services that would allow Pygmies to prepare for themselves a place in society on equal terms with their cultivator neighbours, without losing their identity. Most of the missions emphasise an agricultural base to a new Pygmy economy, as well as schooling, health, and equal rights before the law.

### *Sedentarisation*

Catholics drew on the colonial experience for their initial strategy of settling Pygmies; it had after all been successful on occasion — most notably among the Batua of Equateur in Zaire. Like States, churches have institutional reasons of their own for preferring their followers to adopt sedentary life styles: their pastoral duties are easier to organise (churches are more simply filled with villagers than with nomads), as are social services in health and education. The policy of creating large Pygmy villages was attempted in the 1970s in the Lomie region of eastern Cameroon, and in upper Sangha in south-west Central African Republic. Health and educational facilities were supplied, as were the means of opening fields in the forest and building solid houses. The new settlements initially attracted large numbers of Pygmies: 700 Baka in Mouangue-le-Bosquet (east Cameroon) and 1,000 Aka at Beleboka in CAR. But such initiatives ignored the difficulties that Pygmies experience in living together in large numbers, and by the beginning of the 1980s more than a third of the Baka had returned to the forest and the Beleboka village had broken down into units on a more acceptable scale. The experiment amounted to no more than an equivalent of the Zairean official sedentarisation programme, albeit divested of its coercive approach. Although the approach is rarely applied now by Catholic missionaries, there may be exceptions. Kenrick reports hearing of a missionary village with a concentration of between 2,000 and 3,000 Aka near Bayanga in southern CAR (1990).

### *Itinerant animation*

Post-colonial missionary sedentarisation programmes lacked the key element for success in the colonial era: the power of coercion. Unable or unwilling to apply it, the Catholics turned in the 1980s to a formula that, with regional variations, has become a norm. This involves establishing a pole of attraction, a mission centre with a store, school, and dispensary, from which services such as vaccination are taken to the Pygmy camps. As could be expected, Pygmies felt honoured by visits which respected their own settlement patterns and which gave priority to them over the villagers. Two cases from Zaire's Ituri forest illustrate the point. At Bangani, Italian Combonien priests installed in a modest thatch and mud village house report: 'We visit each camp every two months. It's the opportunity for dialogue, to listen to problems, suggest solutions, arrive at agreements, deepen our knowledge. During these visits we are the Mbutis' guests. We share their food and lodging. This option is a scandal for the villagers and a source of pride to the Pygmies' (R.P. Lwanga in Willot 1989). Farther north in the Ituri forest the nuns of the Bipindi team comment on their difficulties in allocating equal visiting time to each camp; any apparent favouritism becomes a source of dispute among the Mbuti.

An initial disadvantage to the 'itinerant animation' approach proved to be jealousy on the part of cultivator neighbours if they did not have access of their own to sought-after services, such as health care. This called for a reassessment of some missions' aims to sever Pygmy dependence on their cultivator neighbours by separating the two populations. Some missions reacted by integrating services, while others, such as the Imbau group of Bafawabaka in the western Ituri, simply acknowledged that the option for the BaMbuti would create tensions. However, a typical response is to recruit motivated young Christian cultivators as animators, on the grounds that any lasting improvements in cultivator-Pygmy relations depend on the extent to which the farming population can become aware of the injustices they impose on their Pygmy clients and neighbours. The missionaries realised that one of the reasons why evangelisation progresses so slowly with Pygmies is

that the Pygmies see Christian cultivators not practising what they preach; in the words of a Baka of Salapoumbe, Cameroon, where a mission works with a population that is two-thirds Baka and one-third Bantu: 'These Christians live a lie, because they don't do either what they say or what they pray' (Willot 1989).

Animators are now employed widely by Catholic projects. They are expected to live and work among the Pygmies, and in the best cases are accountable to their hosts. They receive basic training that equips them to open schools in the camps, attend to first-aid needs, introduce the Pygmies to agriculture, and mediate in disputes with villagers. In Cameroon, where the 'itinerant animation' method was first conceived and is now most fully applied, the results of a decade of effort are beginning to show results; the role of animator is now often filled by Baka themselves.

### *Agriculture*

Missionaries see the dependence of Pygmies on cultivators for food crops and income as the main stumbling block to integration on equal terms. Their programmes give weight as a result to agricultural production. They typically provide tools, seeds, and technical advice through the animation services. This inevitably involves a degree of sedentarisation, though some groups have managed to combine crop production with continued hunting and gathering activities. Baka of Moloundou in Cameroon, for instance, have responded to 12 years of animation by producing and selling their own cocoa; in Bafwabaka, Mbuti animated by the Imbau group are tending dwarf varieties of oil palm and producing their own manioc. However, the transition from nomadic hunting and gathering to sedentary or semi-sedentary farming has not met the expectations of most missionaries; some of the problems and the reasons for them are listed below.

— Most of the mission groups find that the Pygmies' devotion to agriculture is weak and that, notwithstanding 'animation' and agreement that agriculture is 'necessary' and a 'good idea', Pygmies far prefer their traditional forest activities. Anthropologists have found an explanation for this apparent contradiction in their classifications of the hunter-gatherer subsistence mode as 'immediate return' as opposed to the 'deferred return' system of cultivation (Woodburn 1988). Pygmies expect an immediate return on their labour: their particular skills consist of knowing precisely which of the varied forest resources are susceptible to exploitation at a given time; these may be anything from seasonal caterpillars or other insects in particular ecological niches, to wild honey and fruits. Once the hunter-gatherer knows where they can be found, he or she can simply go and harvest. By contrast, the agricultural principle of investing labour for a future return is alien to Pygmy instincts, even though they are not unfamiliar with agricultural techniques in themselves. Pygmies approach agricultural work with immediate returns in mind; hence salaried day labour or labour exchanges for daily food well fit their way of life.

— Farming by Pygmies immediately confronts problems of land rights for villager cultivators have nothing to gain and everything to lose by the conversion of their landless labour force into self-sustaining farmers. They are therefore unlikely to make the necessary land available. Missionaries have been able to use their privileged positions in African society to obtain cultivating land that Pygmies would not themselves have access to without great difficulty. For instance in the Kasais region of Zaire, the Bishop of Hole, who takes a personal interest in redressing the exploited conditions of 4,000 Batwa hunter-gatherers, broke new ground on their behalf in 1990 by obtaining a concession for

their agricultural use, in the teeth of opposition from cultivators. But although they are often active in securing agricultural lands, there is no evidence of missions ever negotiating on behalf of Pygmies more extensive territories that would cater for their hunting and gathering needs as well.

— Hunters and gatherers have perfected a method of dealing with outsiders who wish to organise them: they acquiesce and carry out the minimum work necessary to secure what they perceive as the benefits of the proposed plan: the hardware that their developers bring with them, such as knives, machetes, or other desirable goods such as medicines and food aid. Complex battles of wits can develop as hunter-gatherers and their developers each pursue their separate aims. The process is, at its most innocuous, merely a game, and does little to disrupt the people's way of life; some hunter-gatherers describe goods acquired in this way as 'meat' and the method of obtaining them 'hunting'. The developers for their part eventually find their task unrewarding, and the supply of goods dries up. However, real determination on the part of developers, when backed up for instance by governments, can easily provoke more sinister repercussions. In the worst cases bands become divided among themselves; false leaders may emerge, pitting 'collaborationists' against 'traditionalists', using the goods to favour some and isolate others. Undoubtedly such tactics can eventually lead to total dependence and the breakdown of social organisation. Though acquiescence has proved an effective survival strategy for hunter-gatherers in many instances, it should not be relied on as providing immunity to ill-conceived development programmes. A sounder approach is to assess hunter-gatherers' priorities and needs accurately in the first place. Refer to 3.5 below for some methods of achieving this.

### *Education*

Missionaries have had no less difficulty than governments in bringing formal education services to Pygmies, even though considerable efforts have gone into the formulation of appropriate models and teaching methodologies. Virtually without exception, they aspire to introducing Pygmy children to the State system, where Pygmies are exposed to mockery and bullying by village children. Absenteeism is also higher than among the village population, because Pygmy parents pass on their own knowledge of the forest during hunting or foraging expeditions. Furthermore, the non-authoritarian ethos of Pygmy society allows children to make their own decisions about their use of time, and Pygmy parents cannot insist on their children attending school regularly. The more successful mission-inspired school systems take into account the hunting and gathering calendar, rather than the national timetable based on the agricultural season; they use the Pygmies' own language, and take Pygmy culture as the starting point for the education system. They tend, however, to restrict themselves to pre-school curricula, and Pygmy children who have done well under these specialised systems often fail to make the later adjustment to mainstream primary education. A rare exception are the Ecoles Speciales Pygmés, which offer primary education to the Batwa of Zaire's Kasai region and are recognised by the Ministry of Education.

The practice of interning children in mission or State boarding schools, whether specialised or public, is the most destructive approach to education that has been conceived for hunter-gatherers. The approach was widely practised in Australia, and reports indicate a revival in Tanzania, where a boarding school has been opened for Hadzabe hunter-gatherer and pastoral Barabaig children over the age of seven. Deprived of hunter-gatherer society in the crucial formative years, and sometimes even forbidden

the use of their own language, such children lose their place in their own culture, without assimilating to the national culture. Although there is sometimes a case for attending distant secondary schools where no local alternatives exist, as a rule appropriate models of education should be brought to those hunter-gatherers desiring it.

### *Health*

Although widely recognised as effective traditional healers, Pygmies are no less eager than other populations to benefit from modern medicine. However, they rarely attend health posts or hospitals established for the villager population. Cultivators do not encourage Pygmies to take advantages of the services, perhaps mistaking their greater resilience for an absence of disease. In fact, Pygmies who have become separated from the forest are prone to all the diseases of the settled population, and more so if they are trying to emulate their sedentary way of life. The health problems of sedentarisation include all the diseases associated with poor environmental hygiene: stomach and intestinal disorders, tuberculosis, and infestation with jiggers. The incidence of these is greatly reduced by a nomadic forest life. Similarly the anopheles mosquito that brings malaria is far more active in sunny clearings than in the diffused light of the forest. Roadside society also exposes Pygmies to grave risk of infection with sexually transmitted diseases.

All these factors lead mission health programmes to focus on preventative measures such as vaccination and health education, introducing Pygmies to concepts of personal and communal hygiene for which there was little need in the forest. Their objective is to integrate Pygmies into local health-care systems where they exist. However, as in the case of education, Pygmy groups that are not specifically targeted for careful health education, immunisation, and mother-and-child health programmes are most unlikely to benefit. But positive discrimination in favour of Pygmies can also provoke spoiling tactics on the part of the villager population, as Kenrick illustrates: 'An Italian development agency attempted to set up a barefoot doctor service in the Ituri Forest in 1983, intending to train Mbuti in basic medical skills. The villagers, incomers and government authorities objected to what they termed as 'racism', preferential treatment for the Mbuti, and the project was sidetracked into becoming a village-orientated string of pharmacies' (Kenrick 1990).

### *Legal rights*

Observers who have spent any length of time with Pygmies cannot fail to notice their preoccupation with the status of citizenship and possession of the documents to prove it. The reason is their recent awakening to the villagers' age-old strategy of ensuring their subservience by representing their clients before the law and the administration. It has always suited villagers to keep Pygmies ignorant of their rights and entirely dependent upon them for any contact with outsiders. In many countries of the region it is impossible for rural people to travel, visit towns, or even sell produce without identity documents. All the missions in Cameroon provide Pygmies with birth certificates and other official papers required for identity documents — an important service, which is taken seriously; le Bosquet mission at Lomie keeps 20,000 records on computer and hopes to complete the Baka census with a further 20,000 or 30,000 entries.

Legal assistance is also required in the increasing number of cases of racially-inspired violence that legal aid services bring to light, and which used to pass unnoticed as long as cultivator society held the monopoly over justice dispensed from local courts and tribunals. In the Diocese of Kole, Zaire, where tensions between cultivators and Pygmies

run high, the Pygmy Service intervened during 1990 to contain official harassment following violence by Pygmies; they were protesting against the disabling of a Pygmy accused of stealing palm nuts from a cultivator's tree. Such disputes can lead to extreme levels of violence. In the Diocese of Wamba, also in 1990, a Pygmy was killed and dismembered in an attempt to conceal the evidence; the crime was only reported to more senior officials beyond the immediate locality by virtue of the presence of mission personnel specialised in legal rights cases of this nature.

In conclusion, the missionaries who form part of the Catholic network and attend its meetings appear to be addressing some of the more important needs of the Pygmy population. They are open to reflection, and have adjusted their strategies in the light of failure. It is simplistic to dismiss their efforts and experience as well-intentioned dabbling in a field that should be occupied by professionals: at present professionals willing to share the isolation of the Pygmies are not available for long-term periods and, apart from a very few cases, Pygmies themselves have not yet acquired the education and self-confidence to deal successfully with officialdom. What is arguable is that the missions themselves operate in too great an isolation both from each other and from alternative opinions. This isolation may prevent them from relating their valuable field experience to wider issues and events that could benefit hunters and gatherers. Not being aware, for instance, of the possibilities for linking hunter-gatherers' land needs with environmental concerns lays them open to charges of doing the government's job of assimilation better than the government can do it — and selling the Pygmies short.

### **3.4 Options for development**

The development approaches for hunter-gatherers considered so far assume the need to integrate hunter-gatherers into the mainstream agricultural economy of settled farmers. This gives rise to polarised positions on the merits and ethics of assimilating different cultures and bending them into national conformity. However, though of theoretical interest, such debates are of little practical use in choosing between potential development options. The assumption, for instance, that hunter-gatherers are somehow apart from the national economy is false; no Pygmy bands live in isolation from the wider community, and all are engaged in the exchange of labour or forest products with their neighbours; some even provide regional needs in meat. So rather than engage in arguments over whether to integrate people who are already integrated, effort would be better spent in examining the dynamics of hunter-gatherers' insertion into the national economy, to see whether the terms conform (on the one hand) to criteria of best use of human and other resources, and (on the other hand) to criteria of justice. Section 1 has indicated that Pygmy populations are not taken into account in such discussions, with inevitable consequences of marginalisation and impoverishment. Section 2 has shown that faulty analysis applied to the development of the equatorial forest also has a devastating effect on the environment, without necessarily profiting the State or the local community. The discussion of conservation approaches so far in this section has also shown that the potential for associating hunter-gatherers with measures to protect their environment has been ignored; there is little or no recognition of hunter-gatherers' conservationist skills.

#### *Priority needs*

This report argues that there is a coincidence between environmental concerns in Central Africa and the rights of hunter-gatherers; both depend on the protection of relatively large areas of forest. Most Central African States recognise the value of conservation and can

point to important achievements in support of conservation objectives. In spite of considerable budgetary constraints, Zaire, for example, employs a para-military force of 1,500 rangers to ensure that protection of environmental legislation is respected. Just two of Zaire's national parks, those of Salonga and Maiko, cover no fewer than 4,600,000 hectares of equatorial forest between them, and President Mobutu, who is justifiably proud of having tripled the area of conservation zones since Independence, has stated the wish to see reserves cover 12 to 15 per cent of national territory (République de Zaire, undated). By contrast, no Central African State has made even a gesture towards recognising hunter-gatherers' land rights.

The question of directly linking indigenous land rights with the protection of nature has been the subject of considerable discussion (see, for example Clad 1984), and has given rise on occasion to acrimonious debate between conservation specialists and indigenous peoples and their supporters. However, the coincidental needs of indigenous peoples and the environment make it essential that discussions are carried forward to the benefit of both. Although there is an urgent need to widen the environment debate to include the needs of hunter-gatherers in Central Africa, a detailed discussion along these lines lies beyond the scope of this report, which will limit itself instead to the prior task of showing that hunter-gatherers' needs are not necessarily best met by the development options traditionally reserved for them. To achieve this limited objective, a method is nonetheless required for correctly defining the priority needs of hunter-gatherers. This sub-section will first explore the usefulness of applying gender analysis, which distinguishes between the strategic and practical needs of women in development, to the hunter-gatherer situation. It will then bring the report to its end with a brief review of some of the methods that might be employed in meeting the priority needs of hunters and gatherers.

### *Gender analysis*

Gender analysis is a tool for describing the relations between men and women. Its starting point is the failure of development approaches that have not systematically taken women's needs into account. It points out that women form half of the population, yet are responsible for most of the farming, marketing, and care activities of rural communities. Notwithstanding their crucial contribution to the rural economy, women are 'invisible': they do not have a voice in the community's affairs and are rarely consulted by development specialists. Although they are responsible for most agricultural food production, they do not own the land they work. Their status is often unclear: local culture and tradition regulate the exchange of women, often through payment (bride-price and dowry), and in law they exist only with reference to their husbands' rights.

Comparisons between the situations of women and indigenous peoples should not be pushed too far. Hunters and gatherers, like other indigenous people, obviously do not compose half of most populations (indeed they are often minorities), nor do they provide the greater part of productive labour (though their cheap labour is often crucial to the local village economy or to plantations). But apart from the obvious differences of scale, there are clear parallels as far as status is concerned. Although dominant societies disparage hunter-gatherers as shiftless and backward, they attribute to them productive roles not dissimilar to those of women in many societies: as providers — of game and forest products and of agricultural and domestic labour — and as carers: they are often respected healers. As to their position in society, the client-patron relationship subjects hunter-gatherers to 'ownership' that compares with the rights of 'possession' conferred on men by marriage in many societies; the status of both groups before the law is unclear,

and they do not enjoy land rights. As social groups, both women and hunter-gatherers form part of the development process, but are marginalised from decision-making. So their needs are ignored and their experience, which would be crucial to success, is overlooked.

### *Practical and strategic needs*

Development plans that seek to include women, rather than perpetuate their exclusion from decision-making in the development process, make the distinction between their practical and strategic needs (Moser and Levy, 1986). Needs classified as practical tend to be immediate responses to day-to-day difficulties that arise from their accepted role in society; the role in itself is not questioned. Typical examples of women's practical needs are access to safe water and health care, and assistance with income generation and feeding the family. Strategic needs, on the other hand, specifically recognise underlying injustices in the relationship between the sexes. They may include measures to suppress institutionalised discrimination (such as lack of property rights and inequality before the law), equal political rights, and access to credit. The application of gender analysis to development calls for equal attention to both practical and strategic needs, though in practice development programmes often shy away from the implications of fully empowering women, and settle for some less contentious objective such as improving their standard of living, or merely taking into account women's needs and opinions to ensure the effectiveness of a particular programme.

The types of support offered to hunters and gatherers reflect a mixture of practical and strategic needs, with a clear imbalance in favour of the practical. Health care, schools, seeds and tools, agricultural extension, and housing fall into the practical domain, while identity papers and mediation with the authorities for land and justice begin to meet certain strategic needs. However, the accent of most programmes remains on the provision of services with a view to reducing poverty, and their strategies almost invariably include value judgements about the form that development should take, such as sedentarisation or the adoption of agriculture. As with many women's programmes — and indeed the vast majority of general development initiatives — the work with hunters and gatherers falls far short of questioning the structural causes of their impoverishment.

Ultimately hunters and gatherers depend for their well-being on access to the forest; on this crucial strategic need hangs their ability to control their own development process and to determine their own relations with cultivator societies, with the State, and with intermediaries such as missionaries and other NGO development workers. As soon as this strategic need is met, hunter-gatherers can then engage in the debate about their practical needs, and decide for themselves whether it is (for instance) essential for their well-being to adopt a more sedentary subsistence mode and to engage in some form of agriculture in order to sustain themselves. There should be no doubt, however, that these practical needs are secondary. As Turnbull says of the hunter-gatherers of the Ituri, 'The Mbutis' need is political rather than economic. The continuance of their way of life depends on the confinement of the villagers in their linear distribution (on the forest fringe). This kind of distribution least affects the movement of game and the natural, primary state of the forest on which the Mbuti entirely rely' (1986).

### *Land rights*

Although there are major differences in the sociology of equatorial forest occupation around the world, there are sufficient ecological similarities for useful parallels to be

drawn concerning access to land. In the Amazon basin, for instance, where relatively small numbers of indigenous hunters and cultivators face dispossession both by majority farming populations and by economic exploitation on an industrial scale, governments have responded to the question of indigenous land rights in a variety of ways, some of them positive. In Peru, for instance, the 1974 Law of Native Communities gave indigenous forest peoples the right to register claims to their lands and acquire communal title to them. The law provided indigenous groups with the opportunity to engage teams of specialists including anthropologists, lawyers, and agronomists to help them in the task of surveying their territories (Beauchlerk et al. 1988). Seventeen years later, with several hundred thousand hectares of titled land to their credit, teams such as these continue to work in collaboration with indigenous organisations. These organisations justify their claims to land not only by ancestral right but also, increasingly, on 'ethno-development' — the proved capacity of indigenous peoples for managing the forest on a sustainable basis. In the words of Evaristo Nugkuag, the Aguaruna leader of COICA, the coordinating body for indigenous organisations of the Amazon basin: 'The key to our development is a territory that is sufficiently large, unbroken and diversified, where everyone benefits — people, animals, trees and rivers. With areas such as these we can teach you a good deal about development. The lessons taught us by the engineers, politicians, missionaries, traders, loggers and rubber-collectors were not good. We have nothing more to learn from them. We say that the only viable development is that which places the resources under our direct control, in accord with our own interests' (1989).

The Amazon country which has taken the indigenous people most fully at their word is Colombia. In a bold policy based on the conviction that respecting indigenous technology, economy, and culture is the best way of assuring the harmonious development of its Amazon region, the Colombian government, without any external pressure, has given 18 million hectares of forest back to 70,000 Indians of more than 50 ethnic groups, 'making the region the largest contiguous territory in the world belonging 'legally' to tribal peoples' (Bunyard 1989). Moreover, these lands have been given in perpetuity, and are not even alienable by the Indians themselves. Colombia's Amazon conservation programme includes another 5.3 million hectares of national park which, together with the Indian lands, assure 'protection' of 59 per cent of the country's 38 million hectares of Amazon territory. The protected area is approximately the size of Britain (*idem*). Within the space of a few years, Colombia has changed its approach from the paternalistic integration of its indigenous forest population to the unequivocal, legal recognition that 'indigenous peoples have the right to follow their own customs and traditions (including those aspects that relate to their own forms of authority), to develop their own education programmes in their own languages, and to organise their own health services' (*idem*).

In May 1990 COICA organised, in Iquitos, Peru, the first international conference bringing together indigenous peoples and organisations concerned with environment issues. Among those present were Friends of the Earth, Greenpeace, Oxfam, the World Resources Institute, and the World Wildlife Fund. The concluding statement of the conference began: 'We consider that the recognition of territories for indigenous peoples, so that they can develop management and conservation programmes, is an essential alternative for the future of Amazonia' (Narby 1990).

In the light of existing evidence, Africa remains unaffected by the Amazonia example, in spite of the fact that the autochthonous population of the continent has divested itself more completely than South American republics of a colonial presence in the form of descendants of the original conquerors. Moreover, non-governmental organisations active

in both continents pursue quite different policies concerning indigenous peoples' land rights and conservation issues. As a result, in the African context, the overriding strategic need for land rights is not being met, for a number of commonly formulated reasons. Some of these are presented here, along with their counter-arguments:

*\* Formalised land rights for hunter-gatherers do not conform to traditional concepts of land tenure.*

This is no doubt true (and a similar argument is frequently used to limit the access of women to the land they work), but it ignores the fact that traditional land tenure has undergone changes that operate against hunter-gatherers' interests. While the forests had no particular value to any but the hunter-gatherers themselves and their village neighbours, hunter-gatherers and cultivators organised their separate societies in such a way that both derived what they required from the forest. Although land rights were in theory vested in the cultivators, in practice Pygmies foraged at will. Harms reports that only Pygmies were able to hunt across the lands of different Mongo lineages of Central Zaire without permission, though they were always careful to pay tribute. In contrast, to stray from their own hunting lands Mongo cultivators had to seek prior permission from the chiefs of different lineages, and pay half the catch in tribute (Harms 1974). Pressure on land through logging, shifted cultivation, and scarcity of game have changed such traditional arrangements, creating a need for alternatives that guarantee hunter-gatherer rights. There is no question of dispossessing cultivators; hunter-gatherers such as Pygmies would not in any case wish to dispense altogether with their farmer neighbours, as they would thereby deprive themselves of access to agricultural products. Possibilities for titling hunter-gatherer lands within existing legislation include, for instance, Tanzania's dispositions for communal village lands. More thorough-going measures within the Zaire Basin itself could entail reversing the conservationist strategy of 'core' and 'buffer' areas within protection zones. Instead of restricting core areas to non-human use, these could be granted to hunter-gatherers; the buffer areas would then be employed by cultivators under traditional shifting-agricultural technology. Conservationists concerned with the depletion of game within core areas might wish to negotiate restrictions on the use of traps, the protection of certain endangered species, and limitations on the commercial exploitation of fauna.

*\* States have vested interests in leaving land tenure fluid, opposing customary rights to state rights. They have solved the 'Pygmy problem' by emancipating them and banning mention of Pygmies on the grounds of eliminating ethnic discrimination. Some observers feel that State sensitivities to such questions should not be fanned, as this will only encourage authorities to sedentarise the hunter-gatherers further.*

States that are pursuing and encouraging unjust land-use systems should not be exempt from criticism, particularly if the systems can be exploited to the short-term benefit of a wealthy elite at the expense of large numbers of poor people whose whole future depends on environmental stability. Furthermore, it is the ultimate responsibility of the State not just to pay lip service, but to ensure that practical measures are taken to safeguard all the peoples living within their territories. It may be that State sensitivities concerning ethnic definitions can be avoided by basing arguments for land rights on rainforest protection rather than on minority ethnic rights. There is ample opportunity for informing States about the advantages of a diversity of subsistence modes within their national boundaries.

*\* Negotiations concerning land law are highly complex and (the occasional outright purchase or grant of a concession apart) lies beyond the capacities of most non-specialist project workers.*

It is true that most development workers occupied with hunter-gatherers are better prepared for and more concerned with assuring practical needs than with negotiating complex strategic rights. Their work should be complemented with a wider vision brought by specialists. More intensive contact and mutual exchange of experience would certainly reduce the traditional tensions between theoreticians and grass-roots development workers.

*\* Hunting and gathering requires immense tracts of land, and governments would not condone vesting them in favour of Pygmies.*

There are sound reasons (apart from natural justice and international law) why governments should consider conferring land rights on the original occupants of the forest; governments in Amazonia have done so (see above). To date, no other peoples have been able to assure sustainable use of the forest, or acquired such specialist knowledge of its biological diversity. On economic grounds alone, there is growing evidence that the value of shifting agriculture, hunting, and gathering (all long-term, sustainable activities) exceeds industrial alternatives (Peters et al. 1989); and the potential wealth in medicinal and other plant products is little known in Amazonia and relatively unexplored in the Zaire Basin.

*\* Sedentarised Pygmies are virtually indistinguishable from their cultivator neighbours and it would be unjust to confer large areas of land upon them when cultivators have needs of their own.*

This argument is flawed, in that it seeks to justify historical and continuing dispossession. Hunter-gatherers do not choose to become like cultivators, and it is doubtful that they ever do become truly assimilated into cultivator society. They are pressured into sedentary ways of life in response to forced separation from the forest. Generous land allocations before Pygmies become dispossessed would avert their eventual marginalisation. Where land pressures have built up seriously and Pygmies are sedentarised or have been for some time, they should have at least equal rights to those of cultivators.

*\* Hunter-gatherers' territorial needs are best met by encouraging greater equality between hunter-gatherers and cultivators, rather than seeking structural change in land law.*

This argument has a parallel in gender development where those fearing reaction to a forceful pursuit of women's strategic rights counter that women's rights are best gained by working within existing structures and persuading men of the need to include them in the development process. The argument is that a tactful, low-key approach is more likely to achieve concessions. There are, however, no examples in the literature of Pygmies receiving uncontested rights to land, for either their foraging or their agricultural needs. On the other hand, references to extortionate tenancy conditions and outright dispossession are legion.

*\* The social organisation of Pygmies does not lend itself to the type needed to claim and protect land rights. They are too mobile and have no concept of land ownership.*

Similar arguments used to be put forward to deny indigenous peoples in Amazonia the right to land. However, essentially non-hierarchical societies there have been able to adapt their social organisation to the negotiation for and defence of land. Before legal opportunities existed, indigenous peoples in Amazonia either defended their territory by force or simply withdrew, as hunter-gatherers in Central Africa do. However, where States have legislated on their behalf, indigenous peoples have not been slow in taking advantage of the possibilities. It is also sometimes argued that Pygmies do not have fixed territories, but this has been shown to be wrong by anthropologists: the Mbuti have quite clear spatial demarcations of hunting territories between bands (Turnbull 1986), and anthropologists know or can determine the amount of land required for a given group's survival (Bailey 1989).

*\* Hunter-gatherers lack experience and the education that would enable them to interact with government agents, conservationists, and other specialists in the planning and implementing of alternative development strategies.*

The major hurdle to self-determination by hunter-gatherers lies not in any genetic failings of the people themselves, but in the prejudiced assessments of their cultural worth and intellectual capacity that are ingrained deeply into the mentality of the cultivators who largely govern modern African States. Appropriate models of education have scarcely been explored, and it is no surprise that hunter-gatherers either under-achieve in or totally reject the types of education that seek to alienate them from their cultural background. There is every reason to believe that hunter-gatherers who were convinced that education could genuinely increase the chances for survival under their own terms and within their own territories would find the necessary motivation to perform adequately.

### *Conclusion*

Some of these arguments against targeting land rights for hunter-gatherers are obviously more valid than others. Evidently the current crisis affects both hunter-gatherers and forest cultivators, and solutions must be found that satisfy both; there is no benefit in needlessly pitting hunter-gatherers against their cultivator patrons. Indeed, as we have seen, this can be counter-productive, particularly when the intention is to divide in order to better dominate. However, seeking to preserve a mythical *status quo* in times of rapid social and economic change amounts to condoning the dispossession of the Pygmies. There is a world of difference between development agents (on the one hand) seeking to encourage hunter-gatherers to transfer their dependence from cultivators to themselves and (on the other hand) encouraging hunter-gatherers to analyse their situation, to claim a voice in the development process, and to insist on the rights to their land.

Excusing inaction on the grounds of lack of specialist training is simply inadmissible. Anthropologists and others are well versed in land-tenure arrangements and, with the will, multi-disciplinary teams of national and foreign specialists could be assembled to study the issues. Considerations of cost and time are frequently raised when funds are being allocated to the research and implementation components of development programmes; and the legal, social, cultural, and economic complexities of work with hunter-gatherers are indeed daunting. But it is almost always cheaper and more effective to research a support programme adequately beforehand than to try to rectify mistakes later. But the strongest argument against inaction is the success of the environmental lobby in persuading African governments to lay aside large tracts of forest. What can be done in the name of biological diversity can surely be achieved for human beings.

### **3.5 Methods of safeguarding the forest and hunter-gatherers' land rights: a summary**

It remains for this report to summarise some of the methods of implementing a strategy that can safeguard both the forest and hunter-gatherers' land rights and that can allow Pygmies control over their destinies. Objectives should include legal recognition of the right to hunt and gather on an equal basis with other forms of economic exploitation such as agriculture, pastoralism, and fishing, on the full understanding that hunting and gathering is as viable and as entitled to respect as these others, and in the full recognition that hunting and gathering, when practised traditionally, is uniquely non-destructive of the environment and poses no threat to the genetic survival of fauna.

#### *Safeguarding the forest*

- 1 Land reform and the equitable distribution of agricultural resources in high-density population areas: these measures would immediately relieve pressure on the forest. When accompanied by appropriate community-based rural development initiatives, land reform will go a long way towards stabilising shifted cultivators.
- 2 A moratorium on logging operations in untouched tropical forests, with compensation for lost revenue under such arrangements as 'nature for debt' swaps. Boycotts in northern countries on imported hardwoods, and lobbying decision makers at, for instance, the EC, would apply pressure on logging companies.
- 3 Reform of conservation legislation to permit local communities to own their forest territories. Training in resource management would establish an effective partnership between local communities and conservation authorities.
- 4 A halt to capital-intensive investment in the forest, with the re-deployment of funds towards community-based projects that raise rural living standards.
- 5 Reforestation programmes for rural and urban timber and fuel-wood needs.
- 6 Improved household-level small-animal husbandry for cultivators in order to relieve pressure on forest game.
- 7 Action research among cultivators with a view to achieving sustainability of shifting agriculture. This would include a review of traditional farming techniques, of methods of stabilising yields of slash-and-burn agriculture over longer periods, and of cultivators' settlement patterns.

#### *Promoting hunter-gatherers' land rights*

- 1 Lobbying governments for adjustments in customary law in favour of hunters and gatherers. Where possible NGOs should engage in constructive negotiations with governments for the definition of land-tenure issues, clarification of the status of hunter-gatherers, and the application of territorial and other rights supported by international law.
- 2 Networking between NGOs concerned with conservation and indigenous peoples' rights to guarantee indigenous rights to conservation areas.

3 Making fuller use of specialist studies; encouraging local NGOs to become actors in the debates on environment, land reform, and hunter-gatherers' rights.

4 In full collaboration with the local hunter-gatherer population, giving preference to adequately researched land-titling programmes over other interventions.

#### *Encouraging hunter-gatherers' self-determination*

1 Seeking hunter-gatherers' commitment (rather than their acquiescence) to development goals by means of listening, dialogue, and distinguishing strategic needs from practical needs.

2 Fostering self-managed approaches to development. Schooling, for instance, should not only be local and adjusted to the hunter-gatherer calendar, but should reinforce cultural identity and enable hunter-gatherers to become teachers and health workers themselves.

3 Ensuring hunter-gatherers' participation in the design and implementation of services, and avoiding the forced integration of services for hunter-gatherers and cultivators.

4 Raising the self-esteem of hunter-gatherers. Making available identity documentation. Lobbying locally and nationally for equality before the law and access to justice. Facilitating networks of hunter-gatherers and their supporters.

5 Building on special hunter-gatherer skills; encouraging forest specialisation in the first instance, rather than agriculture or crafts.

#### *Priorities for research*

##### 1 Land tenure

- Comparative studies of land-tenure legislation in the Republics of the Zaire Basin.
- The pressures on customary law and their effects on hunter-gatherers' access to forests.
- Legal and practical implications of relations between hunter-gatherers and villagers: are they an insurmountable obstacle to hunter-gatherer land rights?
- Conservation legislation and the scope for entitling hunter-gatherers. Must conservation and foraging interests be mutually exclusive?

##### 2 Status

- The constitutional status of hunter-gatherers and its effect on their integration into the different national societies concerned.
- Amendments or additions to legislation required to conform with recent international law and to guarantee hunter-gatherers' access to resources.

### 3 Perceptions

- Clarification of differing perceptions concerning the future of hunter-gatherers and the forests: the points of view of investors, the State, missionaries, academics, and hunter-gatherers themselves.

### 4 Personnel

- Inventories of national specialists with the training and motivation to conduct research and assist with programme implementation.

## REFERENCES

- Africa Analysis**, 1991, 'World Bank targets African greens', 25.1.91.
- Bahuchet, S.**, 1987, 'Les Pygmées', *Ethnies* 6-7, Automne 1987.
- Bahuchet, S. and H. Guillaume**, 1982, 'Aka-farmer relations in the northwest Congo Basin', in E. Leacock and R. Lee (eds.): *Politics and History in Band Societies*, Cambridge: Cambridge University Press, 1982.
- Bailey, R.C.**, 1989, 'The Efe, archers of the African rainforest', *National Geographic*, November 1989.
- Beauclerk, J., J. Narby, and J. Townshend**, 1988, *Indigenous Peoples: a Fieldguide for Development*, Oxford: Oxfam.
- Beazley, M.**, 1990, 'Hunter-gatherers', in *The Last Rain Forests*, IUCN: the World Conservation Movement.
- Bunyard, P.**, 1989, 'Guardians of the Amazon', *New Scientist*, 16.12.89.
- Burger, J.**, 1987, *Report From the Frontier: the State of the World's Indigenous Peoples*, London: Zed Books and Cultural Survival Inc.
- de Carolis, A.**, 1977, 'Changements socio-économiques et dégradation culturelle chez les Pygmoides Ba-Twa du Burundi', *Africa* (Rome), June 1977.
- Clad, J.**, 1984, 'Conservation and indigenous peoples - a study of convergent interests', *Cultural Survival Quarterly*, Uol. 8 No. 4, December 1984.
- Colchester, M.**, 1990, Letter to the President of the World Bank, World Rainforest Movement, 14.8.90.
- European Parliament**, September 1990, 'Report by the Committee on Development and Cooperation on the Conservation of Tropical Forests', Doc EN/RR/95514.
- Fairhead, J.**, 1989, 'Food Security in North and South Kivu (Zaire)', ZAK 630, report commissioned by Oxfam, 1989.
- Goodland, R., E. Asibey, J. Post, and M. Dyson**, 1990, 'Tropical Moist Forest Management: the urgency of transition to sustainability'. Environmental Conservation, Washington: World Bank.
- Hart, J.A.**, 1978, 'From subsistence to market: a case study of the Mbuti net hunters', *Human Ecology*, Vol. 6 No. 3.
- Hart, J.A. and T.B. Hart**, 1984, 'The Mbuti of Zaire: political change and the opening of the Ituri forest', *Cultural Survival Quarterly*, Uol. 8 No 3.
- Harms, R.**, 1974, 'Land tenure and agricultural development in Zaire, 1895-1969', *Wisconsin University Land Tenure Centre Papers*, no. 99.
- Hart, T.B. and J.A. Hart**, 1986, 'The ecological basis of hunter-gatherer subsistence in African rain forests: the Mbuti of eastern Zaire', *Human Ecology*, Uol. 14, No. 1.
- Ingold, T., R. Riches, and J. Woodburn**, 1988, *Hunters and Gatherers 1: history, evolution and social change*, Oxford: Berg.
- Kazadi, N.**, 1981, 'Méprises et admirés: l'ambivalence des relations entre les Bacwa (Pygmies) et les Bahemba (Bantu)', *Africa* 51 (4).
- Kenrick, J.**, 1990, 'Deforestation and the Forest Peoples of Central Africa', report produced for the Institute for Ecology and Action Anthropology and the Rainforest Action Network.

- Kingdon, E.**, 1990, 'Caught Between Two Worlds: moral problems relating to conservation in south-west Uganda'.
- Lohmann L. and M. Colchester**, 1990, 'Paved with good intentions: TFAP's road to oblivion', *Ecologist*, Vol. 20 No. 3, May/June 1990.
- Moser, C. and C. Levy**, 1986, *A Theory and Methodology of Gender Planning: Meeting Women's Practical and Strategic Needs*, Gender and Planning Working Paper no. 11, Development Planning Unit, Bartlett School of Architecture and Planning, University College, London.
- Myers, N.**, 1989, 'Deforestation Rates in Tropical Forests and their Climatic Implications', London: Friends of the Earth, December 1989.
- Musilikare, J.**, 1989, 'Contribution à l'Etude des Facteurs Fondamentaux de la Promotion Socio-économique chez les Impungu de la Préfecture de Gisenyi (Rwanda)', Nyakabanda.
- Narby, J.**, 1990, 'Amazonie: l'espoir est indien', *Favre*, 1990.
- Ndagala, D.K.**, 1988, 'Free or doomed: images of the Hadzabe hunters and gatherers of Tanzania', in Ingold et al. (eds.), 1988.
- Nugkuag, E.**, 1989, 'A la comunidad internacional, la COICA por el futuro de la Amazonia', Lima: COICA, in Narby 1990.
- Peacock, N.R.**, 1984, 'The Mbuti of northeast Zaire: women and subsistence exchange', *Cultural Survival Quarterly*, Vol. 8.
- Peters, C., A. Gentry, and R. Mendelsohn**, 1989, 'Valuation of an Amazonian rainforest', *Nature* 339.
- Poore, D.**, 1989, 'No Timber Without Trees: sustainability in the tropical forest', International Tropical Timber Organization.
- République de Zaire**, 1980, 'Loi Portant Régime Général des Biens, Régime Foncier et Immobilier et Régime des Suretés', *Journal Officiel* No. 15.
- République de Zaire**, 1990, 'Plan d'Action Forestier Tropical'.
- République de Zaire**, undated, 'Zaire, où la nature est admirablement préservée', Département de l'Environnement, Conservation de la Nature et Tourisme.
- Thomas, J. and S. Basuchet**, 1983, 'Les Pygmies Aka', *Encyclopédie des Pygmies*, fascicule I, Centre National de la Recherche Scientifique et Société d'Etude Linguistique et Anthropologique de France.
- Turnbull, C.M.**, 1961, *The Forest People: A Study of the Pygmies of the Congo*, New York: Simon & Schuster.
- Turnbull, C.M.**, 1981, 'Mbuti womanhood', in F. Dahlberg (ed.), Yale University Press.
- Turnbull, C.M.**, 1983, *The Mbuti Pygmies: Change and Adaptations*, New York: Holt, Rinehart & Winston.
- Turnbull, C.M.**, 1986, 'Survival factors among Mbuti and other hunters of the equatorial African rain forest', in L.L. Cavalli-Sforza, (ed.), *African Pygmies*, New York: Academic Press, 1986.
- Wilkie, D.S.**, 1988, 'Hunters and farmers of the African forest', in: J.S. Denslow and C. Padcock (eds.): *People of the Tropical Rain Forest*, London: University of California Press.
- Willot, P.**, 1989, 'Rencontre Inter-Equipes Pygmées de Kinshasa'.
- Woodburn, J.**, 1982, 'Egalitarian societies', *Man*, September 1982.
- Woodburn, J.**, 1988, 'African hunter-gatherer social organisation: is it best understood as a product of encapsulation?', in Ingold et al. (eds.) 1988.
- World Rainforest Movement**, 1989, 'An Emergency Call to Action for the Forests and their Peoples'.