Time is short. Africa's black rhino population is now less than 4 per cent of its 1960 level. It is probably the world's most poachable animal, and it certainly seems the most resistant to ingenious, dedicated and expensive conservation efforts. *Dick Pitman* suggests that perhaps we ought to take stock now and think it all through again.

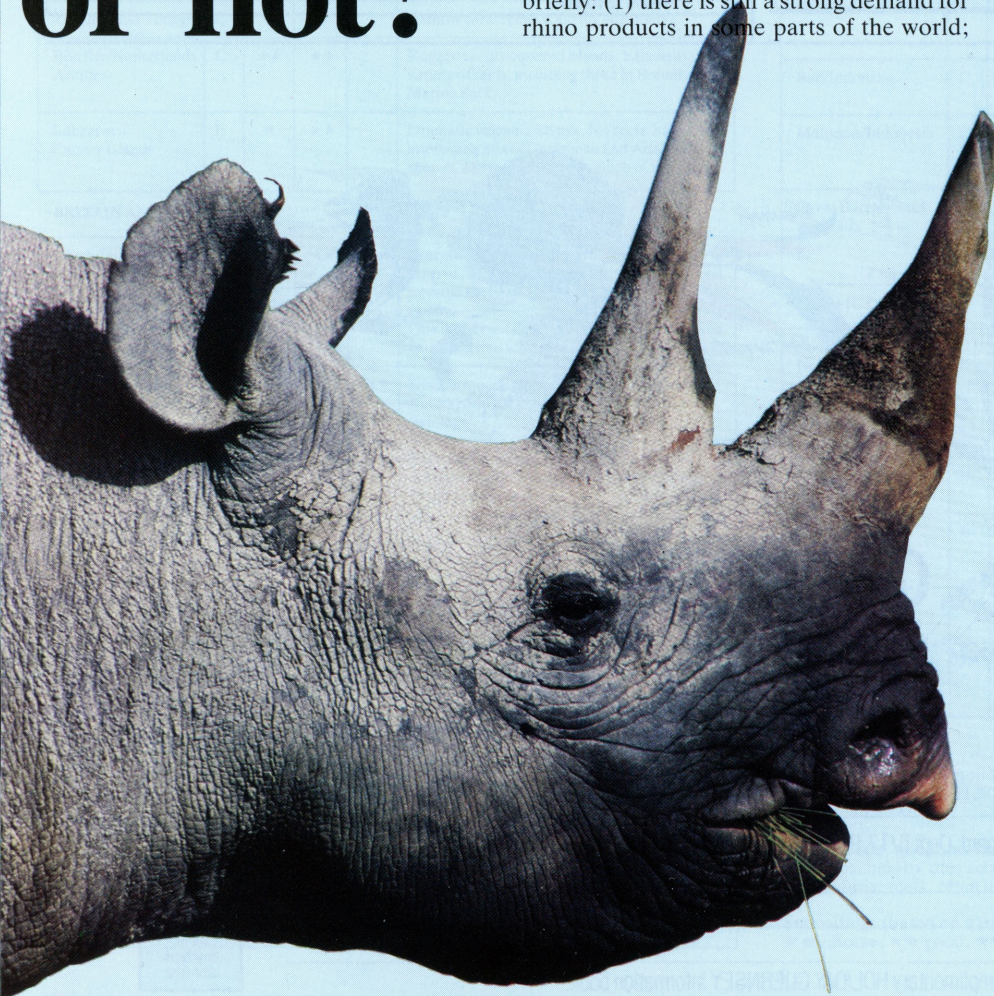
Are we going to save the rhino or not?

Let's spell it out again: there were probably more than 100,000 black rhinos in Africa in 1960. By 1980 their numbers had plummeted to about 15,000; and today there are between 3,500 and 4,000, many in populations of just a few lonely individuals. Zambia's Luangwa valley population, formerly one of the best, now numbers less than 100. The Selous Game Reserve, in Tanzania, was believed to be a stronghold of the species until recent investigations revealed maybe 200 animals. And Uganda has none left at all.

Yet Africa's rhinos have been a matter of deep concern to wildlife conservationists for at least two decades. What is going wrong? Why are rhinos still being killed in spite of all the money that has been raised to conserve them? Must we resign ourselves to preserving the species in captive groups in the hope of better days to come?

The problems can be summed up fairly briefly: (1) there is still a strong demand for rhino products in some parts of the world; (2) protecting wild rhinos is vastly more difficult and costly than is often believed; (3) governments of some end-user countries have been unwilling to legislate against the rhino-horn trade—or unable to implement existing legislation; (4) and governments of many African countries still holding rhinos have often not had the political will to suppress the corruption that enables illegal trade to flourish—or the finance to protect rhinos in their habitats.

This does not mean there is not hope for at least some wild populations of black rhino. But—unlike the problems—the solutions cannot be stated so simply.



It is all too easy to confuse symptoms with root causes. The man with the axe, hacking the horns off a dead rhino, is a symptom. So, too, is the corrupt businessman or government official who pays him. And so, too, in a sense, is the high price commanded by rhino horn and other products—up to US$30,000 per kg in its ultimate form in the Far East, or $15,000 for a Yemeni djambia with a rhino-horn handle.

The root of the problem is the imbalance between the more developed world's wealth and Africa's poverty. It is a fair bet that most readers of this feature will perceive the problem of rhino poaching within the context of their own circumstances—will live in a country with a per capita income of at least $10,000 per year.

But if rhino conservation is to succeed, conservationists throughout the developed world *must* acquire a deeper understanding of the milieu within which rhino poaching occurs. Kenya's annual per capita income is $309. Zambia's, $570. And Zimbabwe's—higher than most, and perhaps it is not coincidental that this is where rhino conservation may be most likely to succeed—is $640. And these figures are only as high as they are because of those countries' urban élites. The bulk of their populations are rural, earning maybe $100 a year, if they are lucky. African wildlife does not exist in a fairytale paradise of untouched wilderness. It survives precariously, in island reserves surrounded by seas of poverty.

Furthermore, the corrupt businessman or official stands astride both worlds—and can make his fortune by selling at high prices, while buying for the pittance that is still a relative fortune so far as his suppliers are concerned.

A number of people—notably Dr Esmond Bradley Martin, financed by WWF—have devoted much time and effort to halting the international trade in rhino products. In North Yemen, which hitherto accounted for almost half the horn poached in Africa, Bradley Martin is being demonstrably successful in swaying government opinion in favour of enforcing legislation against imports of rhino horn. But meanwhile, the United Arab Emirates, a well-known centre for illegal trade, has left

CITES, the international wildlife trade convention.

By and large, though, Bradley Martin has made a considerable impact on traffic in rhino products, but it takes more than the signing of a treaty to halt a trade, especially when the product in question is both highly priced and easily smuggled. It requires, among other things, the intensive education of law-enforcement agencies and the imposition of genuinely deterrent penalties for offenders. End-user governments must have both the resources and the will to implement bans on trade in rhino products.

If Bradley Martin were to succeed in persuading all present importers of rhino products to impose bans—and these would include the Far Eastern countries with pharmaceutical users—and those bans were enforced effectively, then the rhino poaching problem would to all intents and purposes be solved.

But some professional conservationists doubt the ultimate enforceability of bans on wildlife products and believe that, although Bradley Martin's efforts should be continued, the question of a legal trade must be considered. Precedents include the export quotas on crocodile and leopard skins now permitted under the CITES agreement.

The inauguration of a controlled trade in rhino products would, however, require a radical reversal of much past thinking, and would negate much of the effort that has gone into suppressing demand in recent years. Would such trade merely restimulate a demand that it would be unable to satisfy—and hence add fresh impetus to poaching? And where would the horn come from? These questions, and many others, need research—and quickly, too.

And a problem that has to be considered at the same time is the uselessness of the black rhino to the countries in which it survives. As matters stand, the animals are little more than large, grey, costly and sometimes aggressive nuisances. The only economic benefit an African government gains from rhinos is as part of the whole mix of spectacular wildlife that creates cash from tourism. But how many tourists actually get to see wild black rhinos, even where they are still relatively abundant? And would the presence or absence of rhinos have any influence at all over their choice of destinations, as long as there were still plenty of elephants, buffaloes and lions?

Poachers, contrary to belief, are not usually starving peasants trying to feed their families, but they do often rely on poor rural people to provide transport, shelter and intelligence on the movements of anti-poaching forces. These rural people have every incentive to help poachers, ranging from a share in the proceeds to threats of physical violence—and no counterbalancing advantage in trying to save rhinos. The only disincentive is legal, and that, in turn, relies on a strong chance of being caught. Experience shows that this chance is generally felt worth the risk.

‘. . . the animals are little more than large, grey, costly and sometimes aggressive nuisances.’

It is an insult to African peoples and governments to suggest that they will not conserve wildlife for the ethical and aesthetic reasons that motivate many Northern conservationists (who have, incidentally, already managed to exterminate most of the large mammals in their own countries). Wildlife is an important wellspring for artistic expression in most African peoples, and a respect for fellow creatures runs deeply through their cultures and traditions.

But most past failures in African wildlife conservation can be traced back to the unthinking imposition of alien cultural and social attitudes—notably the ‘sacred cow’ complex that has resulted in so much hostility towards parks and wild animals. It is Africa's right—and Africa's alone—to decide how its wildlife can best be conserved; and in view of the constraints faced by most African countries, most thinking conservationists acknowledge their right to derive economic benefit from wildlife.

The bulk of the income in most existing utilisation schemes is generated by sport hunting, and however much we may rebel at the thought, one means of creating income from rhinos—and hence an economic incentive to conserve—is to allow a strictly controlled number to be shot by safari hunters, with the proceeds being divided equitably between government coffers and rural people. Had the 300 rhinos already poached in the Zambezi valley been killed by sport hunters at a trophy price of $10,000 each, they would have earned $3 million in revenue—more than enough to provide effective protection for the area.

Many people—including the writer—have an ethical objection to the killing of any animal for amusement. Indeed, it is at least arguable that in ethical terms the poacher is no more ‘evil’ than the sport hunter. In both cases the result is the same: a dead rhino; and since many poachers now use high-powered hunting rifles with great accuracy, the difference is purely one of legality.

But we are talking about an extreme emergency—the possible extinction of a species in the wild. The moral argument is as old as intelligent man: does the end justify the means? And few of us, in Zimbabwe at any rate, are prepared to argue a fine moral point if the means can help to save the rhino. The danger—as ever—lies in pinning *all* hopes for wildlife solely on economic values, abandoning all ethical and aesthetic considerations—and, in so doing, allowing the means to become the end (see ‘Utility and Sorrow’, BBC WILDLIFE, February 1984).

And there are other possible means of generating cash from rhinos. One, suggested by Glen Tatham and Dr Russell Taylor of Zimbabwe's Department of National Parks, is to capture live specimens and sell them overseas. Again, revenues could be split fairly between the government and rural dwellers.

But the hint of a legal trade does open up a third possibility, providing that the factors already mentioned, plus a few new ones, can be resolved: that of harvesting horn from wild rhino populations—and at the same time keeping the animals alive and in their natural habitats.

Proponents of dehorning tend to get a rough ride from professional biologists — maybe rightly, because nobody as yet seems to know what happens to wild rhinos without horns. On the other hand, we *do* know what happens to rhinos with horns: they get shot. Now, dehorning an entire wild population merely to reduce their attractiveness to poachers is a gargantuan and ultimately fruitless task. While you are dehorning animals at one end of the park, poachers are busy killing rhinos at the other end, because their horns have regrown. But—*if* a legal trade is deemed necessary—how much better it would be to fulfil it by harvesting horn from wild populations, thus killing several birds with one stone: depressing prices for illegal horn, making rhinos less vulnerable, and creating substantial revenues for hard-up countries.

While these economic questions are being resolved, most authorities agree that funding for ‘on the ground’ protection—in other words, treating one of the symptoms, as opposed to the root cause, of poaching—must be maintained and probably dramatically increased. But some conservationists—mainly professionals, and usually overseas—are becoming opposed to putting money into ‘on the ground’ protection. Their reasoning is based on the many failures that have already occurred—in Zambia and Tanzania, for example—and they believe that limited resources would be better spent on exercises such as the establishment of captive-breeding groups. Translocation to less vulnerable areas is sometimes seen as the ultimate version of this. For example, Kenya—which in 1987 had some 480 rhinos scattered through 17 populations—has established the Rhino Rescue programme to consolidate these animals into viable, protected populations.

Since Kenya still possesses a viable conservation infrastructure, it may well be successful in protecting these populations. But this approach is by no means possible everywhere. First, as the Zimbabwean experience has proved, losses during translocation can be frighteningly high. Second, translocation can merely be an expensive ▷

way of moving the problem around, and any international investment in translocations has to be preceded by a close examination of a country's motivation and ability to protect the relocated animals.

Captive-breeding provides an insurance that, even if all wild populations are ultimately wiped out, the species will survive for a while, and the establishment of captive-breeding groups, both inside and outside Africa, is generally seen as a vital part of the rhino conservation mix. Some countries, such as Zimbabwe, are now pursuing a three-pronged strategy: conservation of important populations *in situ* in the wild; translocation of animals into less vulnerable areas to form nuclei of further wild populations; and the establishment of captive-breeding groups.

But the question remains: what of the remaining large, viable and truly wild rhino populations in Africa? The obvious answer is to put money into protecting the most viable wild populations, in the countries in which protection seems to have the greatest chance of success, and to back this up with translocation to safer areas whenever possible and with the creation of captive-breeding groups.

It is estimated that to provide proper protection for conserved areas in southern Africa, an annual expenditure of about $200 per square kilometre is required. Zambia may now have eight separate—often widely separate—black rhino populations, of which five contain 10 animals or less, and none number more than 35 animals. They are contained in a wildlife estate of 160,000 sq km, needing an annual expenditure of $32 million if protection is to be effective.

Most governments allocate a low priority to their wildlife conservation departments, even though wildlife is responsible for most of their income from tourism. Zimbabwe's 12,000 sq km Zambezi valley, which now holds the best remaining population of black rhino in Africa, requires an annual expenditure of $2.4 million. In spite of the deaths of almost 300 rhinos, and tourist-related income of maybe $100 million each year, the Zimbabwean government can commit less than $1 million to protecting the area. The rest will have to come from WWF and from non-governmental agencies such as Zimbabwe's Rhino Survival Campaign, SAVE and USAID.

In 1986, the Zambezi valley was identified as one of the top three priorities of the IUCN's African Elephant and Rhino Specialist Group (AERSG). The other two were the Etosha National Park, in Namibia, and Tanzania's Selous Game Reserve. But as an indication of how quickly the situation can change, it now appears that the Selous rhino population has been poached to such an extent—maybe down to 200 animals—that it has been dropped further down the scale of priorities.

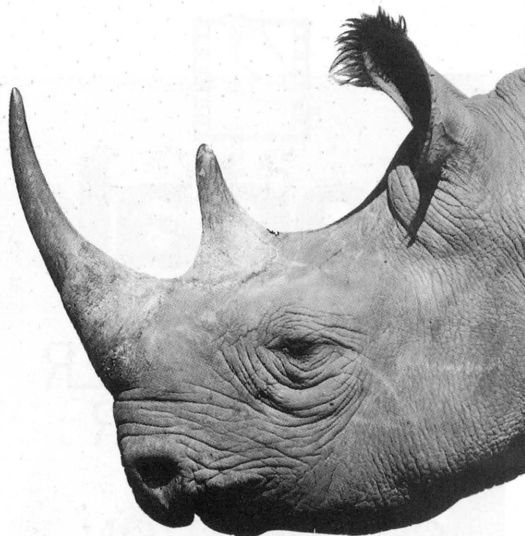
But even assuming that substantial funds can be raised, how can they best be spent? Although items such as helicopters and vehicles are important to anti-poaching operations, there is a limit to the amount of equipment that can usefully be flung into an area; and monitoring schemes, though essential, do not physically prevent poachers from killing rhinos. Protection depends on the effectiveness of the men deployed to protect an area, and the gathering of the intelligence necessary for them to do their work—and both ultimately depend on government attitudes and commitment.

Park staff are expected, as a matter of course, to face heavily armed poachers, who will not hesitate to shoot to kill. Their families may be threatened with violence or death. When not on patrol, they may be forced to live in virtual shanties, with scant attention paid to basic matters such as education for their children. In return they are paid less than £100 a month—even in countries where they get regular pay at all—and they are expected to maintain a rigid integrity in the face of the relatively huge sums to be gained by co-operating with poachers. Many park staff lack specialised training in either guerrilla warfare or intelligence techniques, but are seldom able to call on the services of qualified police or other agencies. Little wonder that park staff will often prefer to 'stay out of contact'—or to become corrupt.

The supply of equipment is only a partial answer. There is a desperate need to make sure that the men are properly trained and paid. Yet rigid government regulations make it virtually impossible for non-governmental conservation agencies to augment the meagre salaries currently paid to rangers and game-scouts or to assist with their training. And some governments persistently fail to make use of an immense pool of highly-skilled volunteers who would be only too glad to spend time 'on patrol' in wilderness areas.

Another symptom that needs treatment is the corrupt people—and even countries—who will send men to their deaths for the sake of rhino products and the cash they generate. Early in 1987, Dr David Cumming, then chairman of AERSG, identified corruption as a key factor in rhino poaching. "The first step," he says, "is to identify the pivotal individuals. The next is to break the 'Mafia-like' alliances, through whatever means are most appropriate, and so stem the strong local, sometimes regional, demand for horn and local ivory."

Those involved in corruption are almost inevitably highly placed, often politically powerful and, practically speaking, above the law. Sometimes diplomats are implicated—for example, the *Economist* Foreign Report of 26 November 1987 said that some 70kg of rhino horn had left Harare in North Korean diplomatic bags. Hard evidence, though, is painfully difficult to obtain. Work of this kind is a matter for highly skilled professionals; and the leadership of the country concerned has to possess the political will to allow such investigations to take place—and to run their course to final conviction, disgrace or, at the very least, the quiet sacking of offenders. The international conservation movement could, perhaps, request a trade-off: make financial aid contingent on a truly determined effort to eliminate corrupt individuals—or organisations—responsible for rhino poaching.



To return to our original questions: what has gone wrong, and where has all the money gone? Unfortunately—as so often happens—the sheer magnitude of the problem has been consistently underestimated. In a sense, the money has been swallowed by the sheer vastness of Africa and the difficulties involved in protecting valuable animals over thousands of square kilometres. There has also been a failure to devote enough attention to the root economic causes of rhino poaching. Protection, translocation and captive-breeding are important, and probably always will be. But the entire edifice hinges on finding the real answer to the traffic in rhino products—be it in a total, effective ban or in a controlled trade.

Wild black rhinos have become the ultimate symbol of threatened African wildlife, and their survival is a crucial test for the conservationists of Africa and the world. Obviously those of us who are involved in operations such as Zimbabwe's Rhino Survival Campaign, Kenya's Rhino Rescue or Namibia's Save the Rhino Fund are convinced it can be done—but we need to buy time; and to buy time, we need money. In return, we need to demonstrate that it is being well spent. □

Dick Pitman is a freelance wildlife and environmental writer living in Zimbabwe. He is chairman of the Zambezi Society, was founder-chairman of the Zimbabwean Rhino Survival Campaign, and is the editor of *Zimbabwe Wildlife* magazine. He is author of *Wild Places of Zimbabwe* and *Zimbabwe Portrait* and is currently working on a book on black rhinos.