

PN-AAZ-627

ANN-55693

BIOLOGICAL INVENTORY AND TRAINING IN
KORUP NATIONAL PARK

A Proposal for USAID Assistance
to the Korup Project Through its
Biological Diversity Program

936 5517

Bill Weber
November 1987

ENVIRONMENTAL PLANNING AND MANAGEMENT PROJECT
INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT

This document was produced for
the Environmental Planning and Management Project
of the
International Institute for Environment and Development
under the EPM Contract No.

RA/FA/87-08

The Environmental Planning and Management Project is a cooperative agreement between the International Institute for Environment and Development and the U.S. Agency for International Development to respond to requests for assistance from developing countries in a variety of environmental and natural resource management problems.

Single copies of this document are available free from:

International Institute for Environment and Development
1717 Massachusetts Ave. NW, Suite 302
Washington, D.C. 20036
(202) 462-0900

November 17, 1987

TO: Robert Winterbottom - IIED/EPM
Molly Kux - S&T/FENR
Abdul Wahab - AFR/TR/ARD
Jay Johnson - USAID/Cameroon
John Dalton - Korup Project Manager
Steve Gartlan - WWF Scientific Advisor/Korup

FR: Bill Weber

RE: Korup Project Consultancy: October 28 - November 18, 1987

Background

This consultancy was funded by IIED/EPM in support of a USAID/Cameroon request for assistance with regard to conservation of the Korup National Park. The Scope of Work focused on four general activities:

- to stimulate greater government awareness of the Korup Project;
- to determine the degree and nature of other donors' interest in the project;
- to assess the project's current status and make appropriate recommendations; and
- to propose options for USAID assistance to the Korup Project.

Following a day of travel from Rwanda on October 28, the next five days were spent in discussions with Dr. Steve Gartlan, Project Manager John Dalton and other concerned parties at the project's headquarters in Mundemba. The remainder of my time was spent discussing the project with various officials from the Government and interested donor organizations (see attached list of individuals contacted). The following report is based on these discussions and is divided into two parts: the first provides a review of major issues, while the second represents a specific proposal for USAID/NGO support to the Korup Project.

Issues and Recommendations

Government attitudes

Cameroonian officials from the principal institutions concerned appear to be very well informed about the Korup Project. High level representatives of the Presidency, the Secretariat of State for Tourism, and the Ministries of Agriculture and Higher Education and Research were able to discuss the project in detail and indicated a high degree of governmental support for the Project. In addition, past confusion over administrative responsibilities for this interdisciplinary project appears to have been effectively dealt with through the creation of a Government Coordinating Committee for Korup (chaired by Secretary of State for Tourism, which is responsible for national parks).

-1-

At the same time, several issues arose with regard to the government which require attention. The first of these is that the project agreement between World Wildlife Fund and the government has not yet been signed. No one felt that this reflected government opposition to the document; and, in fact, the project is proceeding with its activities on the ground. It is nevertheless a fundamental issue to be resolved, as it also could affect other donors' ability to contribute to the project (see below).

A second issue which was discussed may also have some relation to the first. Cameroon is currently facing what it terms an economic "crisis" due to falling world prices for its principal exports. This could have an effect on the government's ability to come through with the more than \$400,000 that it is committed to contribute to the project's execution. Although this was never stated directly, the "crisis" in general was referred to in almost every discussion and my personal opinion is that this situation will likely result in resistance to certain expected contributions.

The third question which arose concerned the direction in which the project is now moving. In particular, several government officials expressed concern about when something concrete was going to be done about the park itself (as opposed to the various buffer zone activities which are already under way). David Momo, Director of National Parks, stressed the need for adequate infrastructure and materiel (park HQ, guard quarters, patrol posts, vehicles, tents, radios, etc.), with a secondary emphasis on boundary demarcation. Presidential Advisor Nzo Ekangaki supported infrastructure development as not only necessary for effective park management, but also to firmly establish in the eyes of local authorities and people that the park is a reality. Mr. Ekangaki also stressed that Cameroon would like to see a permanent research center of regional and international significance created in the park. This idea was seconded by Victor Belinga, Director of Research (MESRES), who felt that the establishment of a university satellite campus in Mundemba (for the study of rainforest ecology and management) would be an important step in this regard. He also acknowledged, however, that there are currently no Cameroonian scientists with significant field experience or higher degrees in this subject area.

Donor interest

There is also a significant degree of donor interest in the Korup Project. Currently, the project is being financed by a roughly \$1.1 million dollar grant from the British ODA to the World Wildlife Fund (which is committed to match this amount). In addition, it is virtually certain that the German technical assistance program (GTZ) will become involved at an almost equal funding level (1.8 million DM), based on an offer made in an Aide-Memoire sent to the Ministry of Plan in early November. To secure funding for the coming year, however, the Cameroonians must respond before the end of this month -- and the matter may be further complicated by the lack of a signed project agreement.

The European Development Fund has also apparently made a commitment to support a Park Advisor position for the next four years. In discussions with the EDF Representative, however, the possibility of further support for a research center was raised. This would be within the structure of a regional project concerning several central African countries, with Cameroon's role being that of the regional research center for the study of tropical forest ecosystems. The EDF Representative said that this would have to be discussed with the other parties, however, and that EDF would probably want to limit its role to that of infrastructure construction.

In a meeting with a Japanese mission looking at possible forms of assistance to Cameroon, the subject of Korup appeared to be one which interested them a great deal. No commitments were made, but the possibility of support for infrastructure development in the areas of park management, research and tourism seemed to have some appeal.

The two other donor groups met with were the Canadians and USAID. The former did not rule out the possibility of assistance, but were waiting for specific proposals or requests. A particular problem area raised by the Canadian First Secretary was the sensitive issue of resettlement which, unless resolved, might inhibit Canadian participation. As for USAID, their interest in making a contribution was quite high, but constrained by limited mission funds. Their potential areas of involvement are discussed in more detail below.

Project status

It is premature to make any formal evaluation of the Korup Project, given that it only began its full-time field operations a few months ago. Some general comments can nevertheless be made on its current status and the direction it would seem to be moving in, based on on-going activities and budget provisions.

The project is committed to a dual-track approach to conservation through the protection of the park and the promotion of sustainable forms of land and resource use in the surrounding buffer zone. This is definitely a correct approach to dealing with the project area as an integrated whole. At the same time, it is not entirely clear how the two components are truly integrated within an overall project plan; and, at present, the bulk of all activities are focused on the buffer area, with much less certainty of funding for the park itself. While I would see the buffer zone continuing to receive the major share of funding for the life of the project, some greater degree of balance is needed if the park is to be more than an outline on a map.

A second major observation is that the above situation and several other important issues could be readily brought into clearer focus through an internal project assessment of its immediate and longer-term priorities. The existing project document is more of a shopping list than a management guide. The establishment of priority needs and actions would help guide both donors and the government, and permit more effective project management.

Recommendations

1. The project agreement with the government should be signed as soon as possible. This will not only permit a clearer understanding of who is responsible for what, but will also permit other donors to be involved in a quick and efficient manner.

2. Action priorities need to be established on the basis of the activities listed in the project document. This will permit a better assessment (and possible realignment) of the balance between multiple project objectives; more readily identifiable components for funding by other donors; a clearer guide for both the government and the project as to the timing of their actions and associated budgetary commitments; and generally more effective project management.

3. Attention also needs to be given to the existing management structure. As additional activities get underway, and especially as other donors get involved, management of such a multi-faceted effort could become a nightmare. Arrangements therefore need to be clearly established at two levels. First, new donors should define their relationship with the project via Memoranda of Understanding, agreed to by both the project management and the government. Second, individuals working with the project should have a clear idea of their responsibilities and relationships within the project. At the same time, I would strongly recommend an approach which permits a high degree of individual autonomy for sub-contractors, so as to encourage initiative and avoid overburdening the Project Manager.

4. Following this internal determination of priorities and appropriate management structure, other interested donors should be approached, either in one-on-one or round-table discussions, to match their interests with project needs and then proceed to agreements on support for particular project components.

5. There is a need to assure the presence of true government counterparts for various project activities. Many of the seconded personnel occupy already-existing positions, such as the park Conservator. This situation will limit the possibilities for effective collaboration. At least some full-time counterpart positions should be filled; and if the current economic crisis precludes government support for all of them, then project support should be considered on at least a temporary basis.

6. The resettlement issue needs to be clarified soon. The one thousand people now living within the park are required by Cameroonian law to leave the park. They are also entitled to reimbursement for their land and buildings and additional assistance for resettlement. Most of these people are apparently willing to leave (with one notable exception: a village of 400 near the Nigerian border), as long as these conditions are met. The government does not have the money to pay for this, however, and donors are reluctant to get involved with

such a sensitive issue. The result is that the park inhabitants are in limbo; and it appears that most are increasing their level of forest exploitation to get what they can before leaving. There are on-going studies to examine this issue, but a time-limit should be set for recommendations to be made for an orderly beginning of the resettlement process. This could be then spread out over time to permit manageable financing, and some consideration could be given to allowing a village like Ekundu-Kundu to remain to provide support services to a research-tourism center nearby. But some action should be taken soon to either begin moving people out in a humane manner, or to make alternative proposals.

7. Actions must also be taken to support the park's existence. These should include at least a limited form of boundary demarcation (especially in the south); the building of patrol stations around and within the park; an increase in the number of guards and necessary equipment for mobile patrols; the building of an adequate park headquarters and a base camp for guards; construction of a foot-bridge across the Ndian River near Mundemba; and the establishment of a research camp within the park. The role of the latter is described in the accompanying proposal; but at least 2 or 3 primitive cabins are required before any serious work can begin.

USAID Support

A proposal for USAID support for the Korup Project is attached to this report. It focuses on the provision of technical assistance in the areas of biological inventory work and training. Funding is requested from the Biological Diversity program (\$200,000), a US-based NGO (\$55,000) and the USAID/Cameroon mission (\$20-40,000). The Mission was very supportive of this proposal during my debriefing (as was the US Ambassador) and said that it would send it on to the appropriate offices in USAID/Washington within a week. The Mission is also considering the possibility of adding support for a Master's degree in tropical ecology to the AMDP funds which make up their contribution in the proposal. Additional Mission support is currently out of the question, due to existing commitments and the possibility of imminent budget cuts. As for the NGO, I have received a tentative commitment for funding from Wildlife Conservation International (a division of the NY Zoological Society) pending their review of the proposal and the decision of the Biological Diversity program.

Two other possibilities for US support were also discussed during this trip. The first concerns a larger USAID commitment to tropical forest management in Cameroon. The forest sector in this country is significant and much could be done in the areas of sustainable forest management, research and inventory work, and extension of the existing protected areas network. Proposals have already been received for such work in the Mt. Kupe and Mt. Oku areas, both of which deserve individual attention. In the long run, however, they could also be grouped with the Korup initiative and other activities under an umbrella tropical forest management program. It is therefore recommended that the Mission

pursue this possibility over the coming year, with advisory support from the NRMS or EPM projects.

Finally, the same conditions that make a larger-scale USAID involvement desirable also apply to potential Peace Corps involvement. This idea was discussed with PC officials who seemed interested in the possibility of a new program focus in the area of conservation/natural resource management. We did not go beyond consideration of their cooperation on the Korup Project, but they will be discussing prospects for a larger program with Steve Gartlan over the next few months.

Conclusion

There is currently a high degree of interest in the Korup Project. This should result in significantly increased funding for what is without question an important conservation effort. If project priorities and management structures can be established, the effective use of such funding will be greatly improved. Finally, there is a need for immediate financial and technical assistance in the area of biological inventory and training which USAID could satisfy through funding of the accompanying proposal.

LIST OF INDIVIDUALS CONTACTED

Jeff Sayer	Tropical Forest Officer, IUCN.
Dr. Stephen Gartlan	Scientific Advisor, Korup Project
John Dalton	Korup Project Manager
Francis Sullivan	WWF-UK, Korup Project Administrator
Dr. Timothy Synnott	Forestry Consultant. Korup Project
Dr. Steve Newman	Agroforestry consultant " "
Ruth Malleson	Socio-economist " "
Roy Osborne	First Secretary, British Embassy
Bob Arrowsmith	Second Secretary, British Embassy
Dr. Wilfried Bolewski	First Secretary, German Embassy
François Arsenaault	First Secretary, Canadian Embassy
Agostino Tropani	Representative, European Devlpt. Fund
Joss Kestemont	Agricultural Advisor EDF
Bill Farmer	Commonwealth Development Corp.
Mark Edelman	U.S. Ambassador
Mosina Jordan	Acting Director, USAID/CAMEROON
Norm Olsen	Acting PDE, USAID/C
Bruno Kosheleff	Program Development Officer USAID/C
Gary Cohen	Environmental Officer, USAID/C
Bob Schmeding	Human resources/AMDP, AID/C
Steve Taylor	Peace Corps Director
Nancy Morgan	Assoc. P.C. Director/Rural Development
Brian Steinwand	Program and Training Officer PC
Nzo Ekangaki	Presidential Advisor, Presidency
Dr. Nfor Gwei	Secretary of State for Agriculture
David Momo	Director, Wildlife and National Parks
Victor Balinga	Director of Studies, MESRES
Besong Bawak Joseph	Deputy Director of Forestry
Mathias Waindah	Conservator, Korup National Park
Hubert Fege	Director of Development, Mundemba
Andrew Allo	Provincial Chief of Tourism, Buea
Yoshihide Uchida	Chief Researcher, APIC, Tokyo, Japan.
Hideyuki Kaminosono	Senior Research Officer, APIC, Tokyo.

BIOLOGICAL INVENTORY AND TRAINING IN KORUP NATIONAL PARK

A PROPOSAL FOR USAID ASSISTANCE TO THE
KORUP PROJECT THROUGH ITS BIOLOGICAL
DIVERSITY PROGRAM

Objective

To provide assistance to the Government of Cameroon, through its existing Korup Project structure, in the areas of tropical Forest research, inventory and training.

Funding Requested

\$200,000	From USAID Biological Diversity Program
55,000	From Wildlife Conservation International
<u>20,000</u>	From USAID/Cameroon (AMDP Funds)
\$275,000	

Background/Justification

Tropical Deforestation. Although tropical moist forests (TMFs) cover less than 7% of the earth's land area, they contain nearly half of the world's plant and animal species. This unique concentration of biological diversity is threatened, however, by increasingly rapid rates of deforestation and degradation. More than 40% of the TMF biome has been cleared for subsistence and development purposes over the past century, and an additional area the size of Ireland is converted on an annual basis. The predicted effects of such continued deforestation include the extinction of as many as one million species over the next 20 years; associated losses to science, medicine and commerce; the undermining of potentially sustainable forms of forest utilization; the impoverishment and ecological destabilization of a critical

resource base for hundreds of millions of people living in and around TMFs; and even the possible disruption of global climatic patterns.

This situation has received considerable attention over the past decade, resulting in increased commitment and collaboration on the part of international conservation and development organizations, as well as the tropical countries most directly concerned. Tropical moist forests, however, remain both poorly understood and critically underrepresented in the global network of protected areas-- especially in Africa

Korup. The Korup forest is located in the Ndiou Division of Southwestern Cameroon (see accompanying data sheet and map). It is part of the larger Congo Rain Forest biogeographical province: a lowland evergreen vegetational association which extends across equatorial Africa from the Atlantic coast to the mountains of eastern Zaïre. More than half of the original forest in this province has already disappeared, and less than 4% of the remnant area is currently protected in parks or equivalent reserves.

The forests of Southern Cameroon and Gabon are recognized as the most biologically rich sub-unit of the Congolian Province. Due to their role as Pleistocene refugia for forest flora and fauna, they are characterized by high species diversity and high rates of endemism. Korup itself contains more than 400 species of trees at least 5% of which are locally endemic. In addition, the forest provides critical habitat for more than 250 bird species and one-fourth of all African primate species. It is also considered to offer great potential for the discovery of new plant and animal species, given its known richness and highly pristine condition.

For these reasons, the International Union for the Conservation of Nature listed Korup among the highest priority African forests for protection in 1986. In October of that year, the Cameroon government decreed 1,259 Km² of the Korup forest to be fully protected as the country's first rain forest

a

national park. At the same time, the government was engaged in discussions with various donors to establish a collaborative project which would help to manage both the new park and the surrounding buffer zone.

The Korup Project. The document which permitted project activities to begin in July of 1987 represents one of the most ambitious and multi-faceted plans for tropical forest conservation in Africa. Conceptually, it calls for a dual track approach to both protect and manage the park itself and promote sustainable development and resource use in the adjacent human settlement zone. The principal component activities are:

In-park

- Management (including security patrols)
- Infrastructure creation
- Research and Training
- Tourism promotion

Settlement zone

- Soil survey
- Socio-economic survey
- Forestry
- Natural product development
- Agriculture
- Livestock and aquaculture
- Appropriate technology
- Resettlement
- Infrastructure
- Education

In terms of both planned activities and required funding, greater emphasis has been placed on the settlement zone components.

The Korup Project is as complex administratively as it is conceptually. The World Wildlife Fund (WWF) and the British Overseas Development Administration

(ODA) are the principal donors thus far (\$1.1 million each), with the former responsible for overall project management. In addition, several other NGOs have been involved with the project (Missouri Botanical Garden, Wisconsin Regional Primate Center, Earthlife) and it appears that the German technical assistance program (GTZ) and the European Development Fund (EDF) may soon contribute additional funds. On the government side, an interministerial commission has been created to coordinate activities among the several institutions concerned. These include the Secretariat of State for Tourism (which chairs the commission) and the Ministries of Agriculture, Planning and Territorial Development, and Higher Education and Research. In addition to its involvement on project planning, the government is also committed to contribute \$412,000 toward project implementation, primarily in the form of seconded personnel. The current Cameroon budget for running the park is \$30,000 per year.

Although permanent project personnel have only been in-country for a few months (and the Cameroonian Project Manager has just been named) several activities have already begun. In addition to the procurement of vehicles and housing, a prior ODA-funded soils survey has produced its report and accompanying maps of soil suitability; socio-economic and hunting surveys are in progress; and preliminary forestry and agroforestry consultancies have been made. These are vital first steps toward the development of regional land and resource use plans, including the delicate issue of resettlement of the roughly 1000 people now inhabiting the park. Available funds (plus a recent offer of \$1 million from the GTZ) should permit most of these buffer zone activities to continue and attain their objectives.

At the same time, however, there is much to be done within the park itself, for which funding is much less certain. WWF is now recruiting a Park Advisor, who will work with the Cameroonian Conservator to help train park guards, establish a patrol system, demarcate boundaries, and determine priority infrastructure needs. Along with improved park security, however, Cameroonian authorities and WWF management personnel place great importance on the need to establish a center for forest research and training, with the

11

double objective of better understanding the Korup ecosystem and assuring the presence of qualified national scientists who can continue this activity in the long-run. It is in this area that a critical need for technical and financial assistance exists.

Justification. The Korup Project thus satisfies several key criteria for Biological Diversity program support. It is a multiple donor effort which involves both development agencies and NGOs; it includes a significant host-country commitment; it provides an existing project structure and documentation; it intends to integrate the protection of a natural forest with sustainable development of the surrounding area; and its focus is one of the most biologically important areas on the African continent. Nevertheless, there is a clear and immediate need for support for biological inventory and training activities which have not yet been funded.

Proposed Biological Diversity Support.

Objective: Funding would be used primarily to permit execution of the planned "scientific research and training" (B2) component of the Korup Project plan. It would also provide partial support for activities related to "park management and infrastructure" (A12), "tourism" (A13) and "information and education" (B1). This would be accomplished through the provision of a permanent Biological Inventory and Training Coordinator and necessary support funds over a 30-month period, between July 1988 and January 1991.

Activities: A requisite prior activity is the establishment of a base camp within the park. This has been agreed to by the Project Manager, and should probably be constructed in the southern sector before the Coordinator's arrival. This will provide a base for work within the south-central area of the park, although extensive bivouac camping will also be required for work in other sectors.

The coordination of biological inventory activities will be a major activity. Priorities should be established in consultation with the WWF science advisor as soon as possible. These are likely to include the

collection of plant and animal (especially insects and fish) species; sampling of vegetation zones; ground-truthing in support of park map production; and determination of key wildlife density, distribution and migration patterns. These activities should be carried out in collaboration with Cameroonian scientists both attached to the project and from cooperating institutions (e.g. U. of Yaounde and Dschang Zootechnical Research Center). Collaboration with the on-going collection program of the Missouri Botanical Garden would also be essential (project management is now trying to establish the present status and future plans for this program).

Ecosystem research is also required. This should be designed with the project science advisor and include attention to gap dynamics, succession, and key fauna-flora relationships. Specific research topics in this area should be identified for treatment by Cameroonian scientists and students.

The primary role of the Coordinator would be to support the training of Cameroonian researchers. Although some individuals have participated in past collection activities, there are no national scientists with any significant field experience in rain forest ecology (there is a degree program in Natural Sciences, but those who have done field work have tended to focus on the ecology of savanna systems). It is therefore essential to begin training in this important area. The most direct form of training will involve hands-on work with scientists working full-time in Korup (at least two). In addition, field seminars should be arranged during university vacation periods (though it should be noted that the peak rainy season coincides with the long summer recess). Foresters and park managers could also participate in these seminars. Experienced researchers, from Cameroon or elsewhere, with different areas of expertise, could be invited to help guide such training sessions. The coordinator should also be available to give presentations at university centers. Finally, the coordinator should help to identify and, where possible, arrange support for foreign training and study programs by cooperating Cameroonian scientists (e.g. OTS in Costa Rica, short courses at U. Florida - Gainesville, and/or higher degree programs).

13

In addition to these primary activities, the coordinator should also play an advisory role in several other related project areas. The first of these would include advice to the project manager, government authorities and potential donors on the research infrastructure and equipment needs of the park. If korup is to attain the regional and international stature it deserves, it will require more than rudimentary buildings and material.

With regard to tourism development, assistance must also be provided. This is expected to involve primarily scientific or specialty group (e.g. bird and primate enthusiasts) tourism, but resident and expatriate adventurers can also be expected. Some basic infrastructure will be required for such visitors, as will adequate trails, trained guides and informational brochures. The Coordinator would be expected to advise park management personnel on these subjects.

Conservation education is another important project component. Although permanent personnel are to be hired to oversee this activity later in the project, and Peace Corps volunteers have been requested to help with its implementation, the coordinator would nonetheless be expected to contribute to this program. This could include writing articles for a CE newsletter and providing background information (and perhaps photographs) for audio-visual presentations. Overseeing the creation of an information center at park headquarters and helping to arrange visits by local authorities and school groups would also be expected.

Finally, the Coordinator would contribute to an updated park management plan through the submission of a comprehensive written report on the status of research and inventory work within the park. Additional information on infrastructure needs, tourism development, and park security should also be included. This report should be produced around the end of year two (summer 1990) to permit time for consideration and discussion of its recommendations before the Coordinator's departure. This report could also serve as the basis for seeking support for continuation of a research presence in the park beyond January 1991.

Personnel Requirements

1. expatriate biological scientist:

Minimum requirements: M.S. in Ecology/Biology
3 years tropical experience
Physical fitness

Preferred: PhD in Ecology/Biology
Extensive tropical experience
French

2 Cameroonian Scientists: 1 with B.S. in botany or ecology
1 with B.S. in zoology or ecology
(to be seconded by MESRES)

2 PC Volunteers:

Yr. 1 3rd year extendee from PC-Cameroon, with
degree in biology or natural sciences, for
inventory work.

Yr. 2-3 2 volunteers with degrees on biology or
environmental education, for mix of park
inventory and conservation education work.

Local support personnel:

Assistant: Must have extensive knowledge of forest plus
English.

Guides: 400 person/days per year

Porters: per need

Priority in hiring of support personnel should be given to those living in
the project area, especially those to be resettled from within the park.

5

Administrative Arrangements

Wildlife Conservation International (a division of the NY Zoological Society) has tentatively agreed to recruit and provide salary support for the Coordinator's position. (Final agreement is conditional on review of this document and approval of Biological Diversity grant) be administered by WCI (or an alternative U.S. NGO, if necessary).

WCI would establish a Memorandum of Understanding with the WWF Korup Project management to assure coordination of its activities within the overall project structure. In the field, the Coordinator would report directly to the WWF Project Manager and the Conservator of Korup National Park. Within the Cameroonian government, the coordinator would deal with the representative of the Ministry of Higher Education and Research on the Government Coordinating Committee for Korup. USAID/Cameroon coordination and oversight would be assured by the Mission's Environmental Officer.

PROVISIONAL BUDGET
(U.S. Dollars)

<u>Biological Diversity</u>	<u>1988 (1/2yr)</u>	<u>1989</u>	<u>1990</u>	<u>TOTAL</u>
Vehicles (2 Suzukis)	16,000	0	0	16,000
Maintenance/gas/insur.	3,000	6,000	6,000	15,000
Travel (international)	2,000	3,000	2,000	7,000
Per Diem	2,000	3,000	3,000	8,000
Shipping	3,000	500	1,000	4,500
Housing	5,000	10,000	10,000	25,000
Equipment	9,000	2,000	1,000	12,000
Sample Shipping	500	2,000	2,000	7,500
Local Forest Personnel	4,000	7,500	7,500	19,000
Consultant	10,000		0	10,000
Cameroonian Training Support	6,000	12,000	12,000	30,000
Education Survey	5,000	0	0	5,000
Education Materials	0	5,000	5,000	10,000
Miscellaneous	6,000	5,000	5,000	
Overhead/Management	<u>6,000</u>	<u>6,000</u>	<u>6,000</u>	<u>18,000</u>
SUB-TOTAL	77,500	62,000	60,500	200,000
 <u>Wildlife Conservation International²</u>				
Tropical Ecologist salary	11,000	22,000	22,000	55,000
 <u>USAID/Cameroon³</u>				
AMDP Support	10,000	10,000	-	20,000
 <u>TOTALS</u>	 83,500	 109,000	 82,500	 275,000

- Notes
1. Requested from USAID centrally-funded Biological Diversity Program for fiscal year 1988.
 2. Tentatively agreed to by NY Zoological Society pending approval of project document and Bio-Diversity funding.
 3. Requested from AID/Cameroon's African Manpower Development Program funds for Cameroonian training.

References

- The Korup Project, Cameroon. Project Document. World Wildlife Fund, Gland. 1987, 65 pp.
- The Korup Regional Management Plan: Conservation and Development in the Ndian Division of Cameroon. J.S. Gartlan. 1985, 311 pp.
- Proceedings of the Workshop on Korup National Park. J.S. Gartlan & H. Macleod (eds.). WWF/IUCN, Gland. 1986, 117 pp.
- Plan de Gestion, Parc National de Korup, Cameroun. A. Cloutier & A. Dufresne/Parcs Canada, Quebec. 1986, 59 pp.
- Review of the Protected Areas System in the Afrotropical Realm. IUCN, Gland. 1986, 259 pp.

13

KEY



Planned Forest
National Parks

- 1 = Korup
- 2 = Pangar-Djerem
- 3 = Dja



Existing National Parks

- 4 = Kalamaloue N.P.
- 5 = Waza N.P.
- 6 = Faro N.P.
- 7 = Benoue N.P.
- 8 = Bouba-Ndjida N.P.

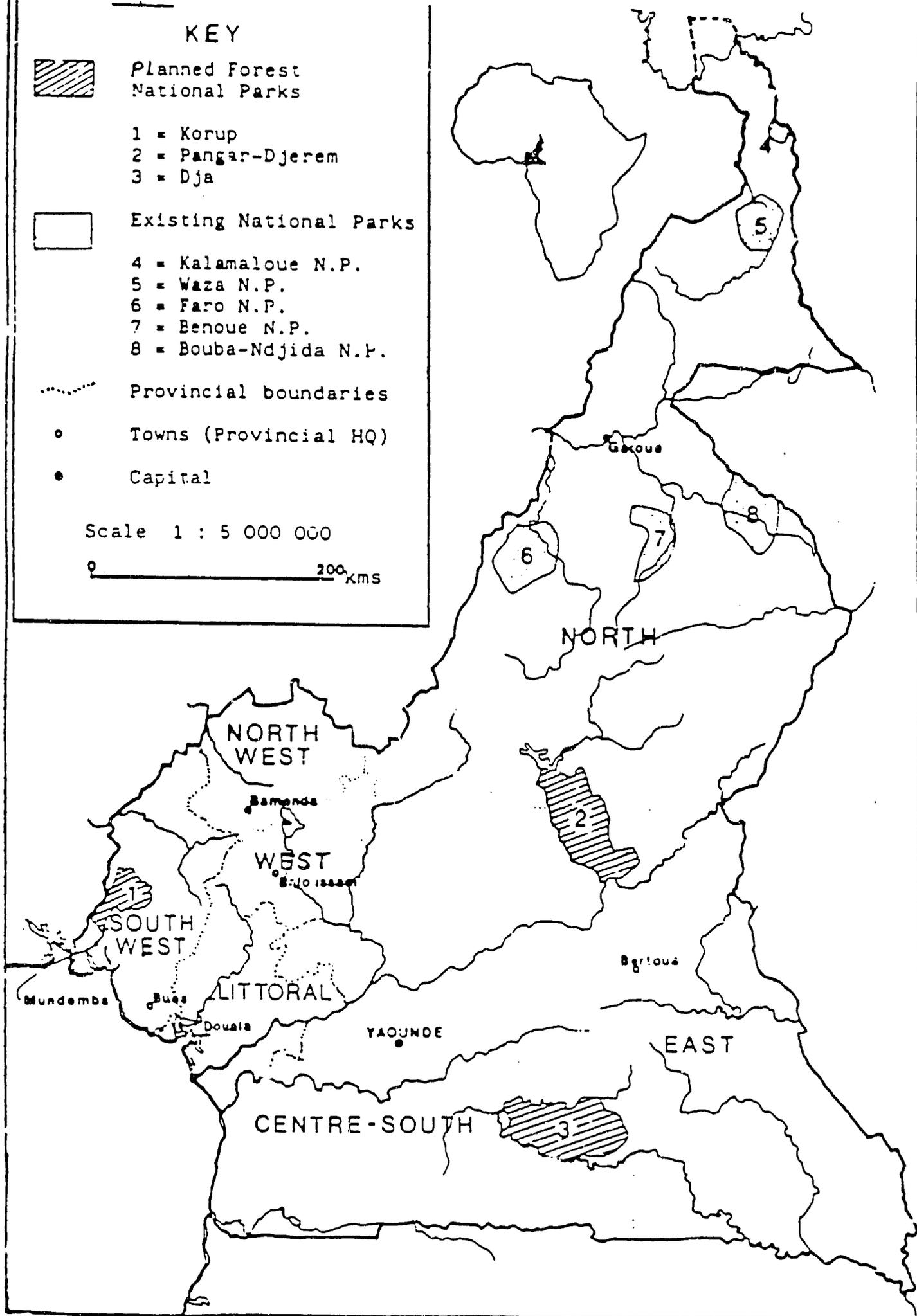


Provincial boundaries

- Towns (Provincial HQ)
- Capital

Scale 1 : 5 000 000

0 200 kms



DATA SHEET FOR KORUP NATIONAL PARK

NAME

Korup National Park

MANAGEMENT CATEGORY

II (National Park)

BIOGEOGRAPHICAL PROVINCE

3.02.01 (Congo Rain Forest)

LEGAL PROTECTION

Totally protected by Presidential Decree No. 86/1283 of 30 October, 1986.

DATE ESTABLISHED

30 October, 1986.

GEOGRAPHICAL LOCATION

4°53' to 5°28'N; 8°42' to 9°16'E.

Korup is located in the Ndian Division of the South-West province of the Republic of Cameroon, Central Africa. It shares about 25 kilometers of its western boundary with Nigeria along the Akpa Korup River between about 5° 02' and 5° 11' north. It lies about 50 kilometers inland from the coast in the Bight of Biafra.

ALTITUDE

About 21,000 hectares (17%) of the park is between 0 and 120 meters in elevation; 50,000 hectares (40%) are between 120 and 360 meters and 40,600 hectares (33%) lie between 360 and 850 meters. Only 1% lies above 850 meters, including the highest point, Ekudukundu Mountain which is 1,075 meters high.

AREA

The area covered by the park is 125,900 hectares.

LAND TENURE

The park is State Land.

PHYSICAL FEATURES

The topography is flat to hilly and mountainous. There are many streams and rivers and three main drainage basins. The soils are poor, acid and infertile.

VEGETATION

Korup is part of a large vegetational association which extends from between the Niger and Cross Rivers of eastern Nigeria south towards the Congo River and east towards the Sangha River. Korup lies in the vegetational zone of this block called Biafran forest by Letouzey (1968). This is a lowland evergreen association occurring in wet coastal areas with protracted rainy seasons. The known tree flora of Korup (about 400 species) contains as many as 5% narrowly endemic species. Korup is also a centre of diversity for several tree genera. Although Korup contains many gregarious Caesalpiniodea, characteristic of the Biafran forest, the most dominant family (in terms of tree numbers) is the Scytopetalaceae (endemic to Africa), mainly represented by the species *Oubanguia alata*.

NOTEWORTHY FAUNA

The park contains most of the mammalian species endemic to the Niger-Sanaga Pleistocene refuge such as *Potamogale velox*, *Arctocebus calabarensis*, *Cercocebus torquatus*, *Mandrillus leucophaeus*, *Colobus pennanti preussi* and perhaps *Cercopithecus preussi*. The fauna of the park also includes species of wider distribution in the Guinea-Congolian forests such as the forest elephant, *Loxodonta africana cyclotis*, the forest buffalo, *Syncerus caffer nanus*, the red river hog, *Potamochoerus porcus pictus* and the chimpanzee, *Pan troglodytes*. A total of 252 bird species has been observed in Korup and its immediate vicinity.

CONSERVATION MANAGEMENT

The boundary of the park is at present unsurveyed. Many of the boundaries are natural units such as rivers. A broad body of scientific knowledge, necessary for management, has been accumulated.

ZONING

No zoning exists but is proposed. There will be tourist areas with marked trails, areas for scientific research and wilderness areas.

DISTURBANCE OR DEFICIENCIES

There is illegal hunting and trapping around the villages located within the park area and from the town of Mundemba and the adjacent oil palm plantation. There is a trade in dried, smoked meat from these villages with Nigeria.

VISITOR FACILITIES

None at present. There is a catering rest house belonging to the oil palm plantation that can sometimes be used by the public. Construction of hotels and rest house facilities is foreseen in the 6th five-year development plan of the Government.

SCIENTIFIC RESEARCH

Much botanical, ecological and phytochemical work has been carried out in the park. Some ornithology has also been conducted.

SPECIAL SCIENTIFIC FACILITIES

Permanent quadrats and transects have been established. No laboratory facilities currently exist although these are in the planning stage.

PRINCIPAL REFERENCE MATERIAL

1. Stephen Gartlan. The Korup Regional Management Plan: Conservation and Development in the Ndian Division of Cameroon. World Wildlife Fund, Switzerland, 1985, 179pp.
2. Stephen Gartlan & David Momo. Korup: A New Approach to Conservation. IUCN Bulletin 17 (1-3), 1986, p.27.
3. Antoine Cloutier & Alain Dufresne. Plan de Gestion, Parc National de Korup, Cameroun. Parcs Canada, Quebec, Canada, 1986 59pp.
4. Gartlan, J.S., D. Mc.C. Newbery, D.W. Thomas & P.G. Waterman. The influence of topography and soil phosphorus on the vegetation of the Korup Forest Reserve, Cameroun. Vegetatio, 65:131-148 (1986)
5. Stephen Gartlan & Heather Macleod (Eds.) Proceedings of the Workshop on Korup National Park, Mundemba, Ndian Division, South-West Province, Republic of Cameroon. World Wildlife Fund, Switzerland, 1986, 117pp.

STAFF

The park staff comprises a Conservator and eight Game Guards together with a boat driver, chauffeur and Secretary. The park is administered by the Secretariat of State for Tourism. Expatriate staff in place include a WWF Project Manager, a Rural Development Advisor and a Scientific Advisor.

BUDGET

The annual Cameroon Government budget for the running of the park has been approximately \$U.S. 30,000 per year over the past four years (excluding salaries of permanent staff). There is also a five-year WWF project (No. 3206) of £3.4 million of which 26% has been raised or committed.

LOCAL PARK OR RESERVE ADMINISTRATION

Divisional Service of Tourism, Mundemba, South-West Province, Cameroon.

DATE

June, 1987.