

AGENCY FOR INTERNATIONAL DEVELOPMENT  
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PN-ABP-330

82836

ENTER INFORMATION ONLY IF NOT INCLUDED ON COVER OR TITLE PAGE OF DOCUMENT

1. Project/Subproject Number 9365948	2. Contract/Grant Number DPE-C-00-9030-00	3. Publication Date June 1993
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4. Document Title/Translated Title

Increasing Mission Awareness of the Development Potential of the OCP River Basins

5. Author(s)

1. McMillan, Della E.  
2.  
3.

6. Contributing Organization(s)

Medical Service Corporation, International (VBC Project)

7. Pagination 91p.	8. Report Number 81341	9. Sponsoring A.I.D. Office R&D/H/CD
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10. Abstract (optional - 250 word limit)

11. Subject Keywords (optional)

1. Onchocerciasis	4. Burkina Faso, Cote d'Ivoire, Ghana, Guinea,
2. Parasitic Diseases	5. Niger, Senegal,
3. River Blindness	6. Sahel

12. Supplementary Notes

13. Submitting Official Robert W. Lennox, Director, VBC	14. Telephone Number 703/527-6500	15. Today's Date June 18, 1993
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16. DOCID	17. Document Disposition DOCRD [ ] INV [ ] DUPLICATE [ ]
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PN-ABP-330



# **VBC PROJECT**

*Tropical Disease Control for Development*

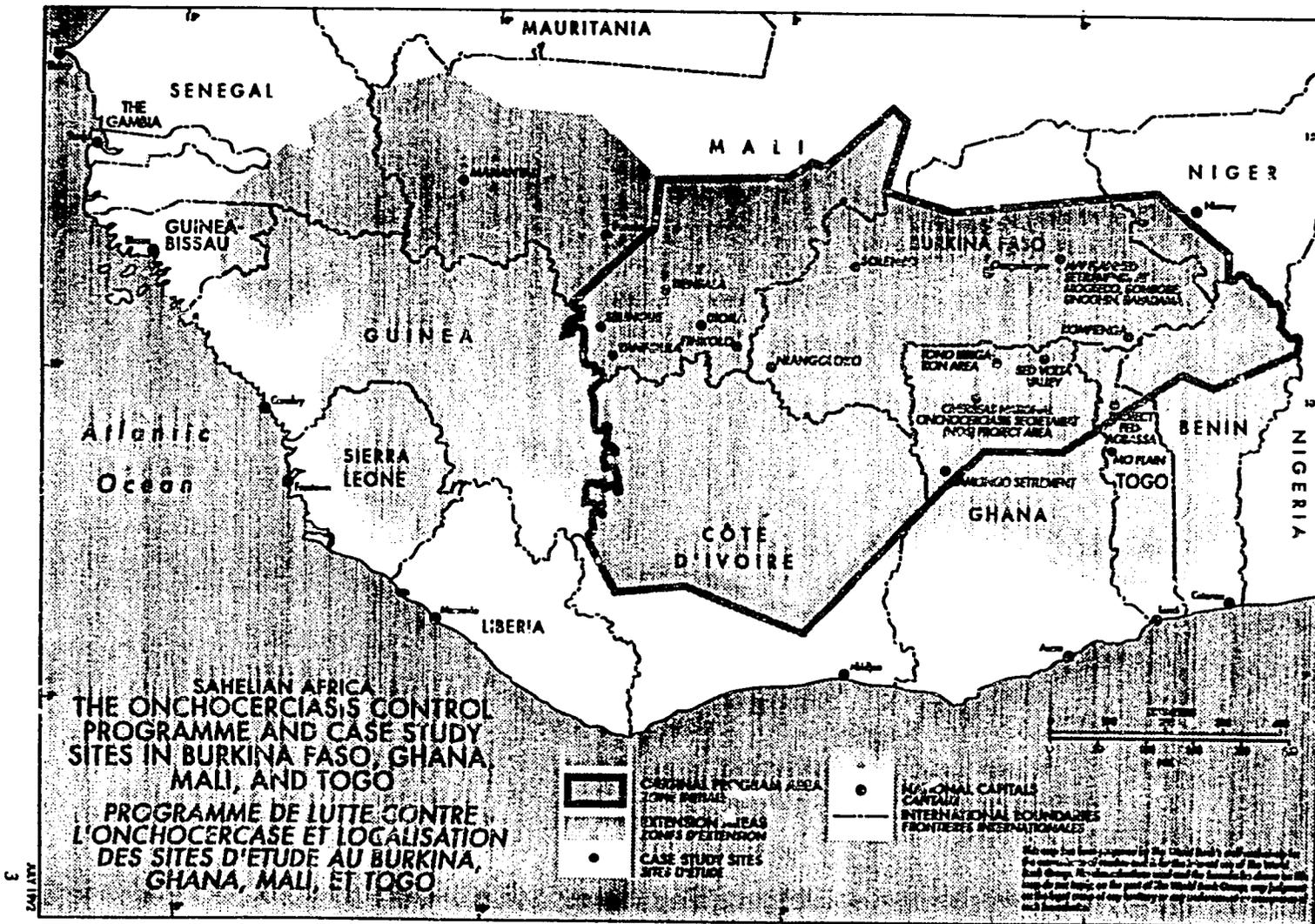
## **Increasing Mission Awareness of the Development Potential of the OCP River Basins**

**by**

**Della E. McMillan**

**VBC Report No. 81341**

Map 1. The Onchocerciasis Control Programme



Source: McMillan, Painter, and Scudder 1992

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## **Acknowledgements**

**Preparation of this document was sponsored by the VBC Project under Contract No. DPE-5948-C-00-9030-00 to Medical Service Corporation International, Arlington, Virginia, USA, for the Agency for International Development, Office of Health, Bureau for Research and Development.**

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## 1. Executive Summary

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The Onchocerciasis Control Programme (OCP) is one of USAID's greatest success stories. Now in its eighteenth year of operation, the program has eliminated onchocerciasis (river blindness) as an impediment to settlement and development in the Sahel's underpopulated river basins.

Continued funding from USAID and the sustained interest of other donors (22 have contributed a total of \$153.47 million dollars for Phase IV), have contributed to the OCP's enormous success. The Programme estimates that 30 million people are now protected from further transmission of river blindness, nine million children born since the OCP began face no risk of contracting the disease, and 1.5 million people, once seriously infected, have no further trace of the disease. The OCP further estimates that it has created new settlement opportunities on 25 million hectares (about 62.5 million acres or 100,000 square miles) of potentially highly productive land that was once virtually uninhabitable due to the severity of the disease. Capitalizing upon these achievements will help ensure that the 26 years of cumulative effort is sustainable beyond the OCP directive.

Initiated in 1974, the OCP is being carried out in four discrete six-year phases. Phase IV (1992-1997), the last operational phase, will be followed by a two-year phasing-out period that will carry the program to the year 2000. In February 1992, USAID pledged \$21 million for Phase IV to:

1. finalize the aerial vector control operations in both the original target and extension areas;
2. continue mass distribution of ivermectin (an oral prophylactic in use since 1988); and
3. in a process known as devolution, to prepare the target countries to detect, monitor and control the disease themselves.

The purpose of the activity reported here was to increase USAID field awareness of Onchocerciasis control and to increase awareness of the new opportunities and constraints being created by control so that this information can be incorporated into the execution of existing and future country strategies. A total of six bilateral missions (Burkina Faso, Côte d'Ivoire, Guinea, Ghana, Niger and Senegal) and REDSO/WCA were visited between November 1 and December 23, 1992. A brief overview of the control program and the development issues created by Onchocerciasis control was made at each Mission based on the recently completed eleven-country **OCP Land Settlement Review** (McMillan, Painter and Scudder 1992). The following four points were emphasized.

- First, the **OCP Land Settlement Review** argues that the streams of new lands settlement into the OCP river basins and the ensuing "crises" in land tenure, marketing and natural resource management they are likely to provoke as population densities increase are predictable. The highest rates of new lands settlement are in areas near roads where there are attractive commercial opportunities in agriculture, mining or commerce. The very highest rates of settlement are found where one or more of these attracting "pull" factors is combined with a major "push" such as high rural population pressure or the repercussions stemming from civil wars.
- The same study showed several instances where increased settlement was associated with development success measured in terms of increased food and cash crop production, higher living standards, and dramatic market and administrative center growth. In almost every case, however, this success occurred in areas where new lands settlement was either deliberately or inadvertently "assisted" by complementary investment in infrastructure, health, education and agriculture.
- Although the river basins have high agricultural potential, long-term planning for follow-up assistance is complicated by the fact that these areas are also prone to problems resulting from several factors, including the river basins' isolation, other health hazards, and land tenure disputes between settlers and the host population.

- **A fourth issue is the need for zoned land-use planning due to uneven soil quality. While certain lands are well-adapted to intensive rainfed agriculture, others are best reserved for livestock and forestry. The need for area-specific land-use planning is accentuated by the important historical role of the river basins as grazing sites and passageways for West Africa's transhumant livestock, and the fact that they include a high proportion of the sudano-sahelian zone's dwindling forests.**

This regional presentation to Mission staff was followed by a more specific review of: 1) the state of control and new lands settlement in each country; and 2) areas of potential overlap with a Mission's existing and projected country strategies and programs.

The resulting dialogue provided clear evidence that USAID is already intervening in a variety of relevant areas through:

- the ARTS Project in *Burkina Faso*, which offers one of the best opportunities for increasing INERA's (*Institut d'Etudes et de Recherches Agricole*) awareness of the implications that onchocerciasis control has for the dissemination of new crop technologies in the high potential, isolated river basins;
- encouraging planners involved in drafting the forthcoming Mission concept paper for *Côte d'Ivoire* to address some of the planning issues that are being created or accentuated by river blindness control and the mission's existing efforts to "activate" the decentralized network of health services by targeting management, planning and supervision training to reinforce the rural health system.
- the *Ghana* Primary Education Program, which targets the impoverished areas of the north where settlement areas with the highest potential were once highly endemic for river blindness;
- the *Guinea* Mission's infrastructure projects and NRMS (Natural Resource Management) project;
- the *Niger* mission's development grant to Helen Keller International (HKI) to support river blindness control devolution activities;

## 4

- the *Senegal* mission's upcoming Community Based Natural Resource Management Project (CBNRM), as well as projects like the Reforestation Project, the Natural Resource Based Agricultural Research Project and the PVO/NGO Support Project, which intervene in areas affected by control; and
- *REDSO/WCA*'s role in fostering intraregional exchange of background literature and planning concepts between USAID missions in West and Central Africa.

A cross-cutting theme throughout the region was the need for better information about the OCP and its results. The most immediate identified need was for better briefing materials describing the socio-economic impact and devolution process for each country. Most of these materials are available or could be made available through the OCP or the World Bank Onchocerciasis Unit. To enhance the chances of effective communication, each of the affected 11 USAID missions and REDSO/WCA could identify resident resource people who would receive this information and provide an "in-house" Mission data bank.

Staff associated with the Niger Mission proposed a small multidonor workshop on "Food Security Issues Posed by the River Blindness Control Project in Niger" through the Mission's (Disaster Preparedness Monitoring) DPM Project funds. Another concrete recommendation was to develop a packet of information on Niger's OCP river basins through the existing USAID funding for the AGRHYMET (Agrometeorologie/Hydrologie/Meteorologie) Project. In response to the Mission debriefing, the Guinea NRMS Project staff recommended that their project support a joint Government of Guinea/OAU/USAID workshop on "Health and the Environment."

Several missions suggested that AID/W, the OCP and the World Bank Oncho Unit work with REDSO to organize a presentation on "Socio-economic Issues Created by the OCP" at the 1993 REDSO/WCA Scheduling Workshop. Another recommendation was to organize a regional workshop for Mission staff on socioeconomic issues related to river blindness control should additional earmarked funds become available. Barring additional funding, several respondents noted that it would be useful to have a consultant familiar with the OCP or one of the dynamic

**national OCP coordinators make a presentation at all regional USAID seminars, conferences and workshops on food security, agriculture, environmental action plans or health.**

## 2. Activity Report

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### A. Purpose

The Onchocerciasis Control Programme (OCP) is one of USAID's great success stories. The Programme's original sphere of operation covered 764,000 km<sup>2</sup> in seven countries--Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger, and Togo (Map 1). In 1986 the control zone was expanded to cover 1.3 million km<sup>2</sup>, including additional areas of Benin, Ghana, Mali, and Togo, and parts of Guinea, Guinea-Bissau, Sierra Leone, and Senegal. Today, 18 years after control started, onchocerciasis is no longer considered to be a public health hazard in the original, seven country core control zone. And, as a result of control interacting with other factors, large areas of once sparsely inhabited river basin are being actively resettled. Some of the measurable indicators of this "success" include the pronounced growth in area markets, production, and administrative center activity in areas undergoing rapid new lands settlement (see McMillan, Painter and Scudder 1992; Huntings Technical Services Ltd. 1988a,b,c,d). Thus, the problem today is not whether river blindness can be controlled but what types of follow-up planning and investment will be necessary to maximize the donors' and national governments' existing and projected investment in control and long-term disease surveillance.

The purpose of this activity was to increase USAID awareness of onchocerciasis control as well as their awareness of the new opportunities and constraints being created by control so that this information can be incorporated into the execution of existing and future country strategies. The activity was a collaborative effort between AFR/ONI and AFR/R&D/Health with substantial backup support from the OCP and the World Bank Onchocerciasis (Oncho) Unit.

## B. Review OCP

### The control program

Onchocerciasis is caused by the threadlike worm *onchocerca volvulus*. The adult worms have an estimated life of fourteen years in the human body where they inhabit the subcutaneous tissues of the skin causing raised nodules and intense itching. Each female worm produces millions of microscopic microfilaria which migrate in the epidermis, causing itching, skin depigmentation, and, eventually, eye lesions that can result in blindness. The disease is transmitted to humans by the bite of the female black fly of the *simulium* genus. The flies can breed only in fast flowing streams or rivers. As a result, the highest incidence of onchocerciasis occurs among people who live in river valleys--hence the name, river blindness.

The inhabitants of the most severely infected river basins followed a cyclical pattern, leaving the valleys in response to the disease, then returning when the poor inland soils could no longer support their numbers. Williams (1974:78) provides a graphic description of the gradual demise of a village in a badly infected area:

...one-tenth to one-half of the men may be partly or totally blind. Brides, traditionally drawn from neighboring villages refuse to leave home. The younger men start to leave, to get out before they in turn go blind. As the population shrinks, the rate of bites per person increases. The village takes on the aspect of death. The children, rough stones in hand, listlessly scratch arms and legs that already itch with worms. As their sight is so far unimpaired, they act as human guide-dogs for the already blind. The village compound of beaten earth, once well swept, is scattered with old animal bones and corn husks. The expanse of millet and sorghum fields gradually contracts. When the last old people die, so does the village.

When the OCP began in 1974, there was no acceptable mass treatment for onchocerciasis. As a result, the early program focused on controlling the black fly vector by repeatedly spraying the infected river basins with

biodegradable insecticides which destroyed the fly's larvae. Since 1988, the larvaciding program has been reinforced by distribution of the oral prophylactic ivermectin.

Through the years, the OCP has maintained an active monitoring program to ensure that the incidence of the disease remains below a critical level. In addition, the OCP has actively supported and collaborated with researchers to develop more effective methods for mass treatment and prevention. The OCP is now working with national governments to distribute ivermectin, free of charge, through the national health services. Due to the difficulty of distributing ivermectin in rural areas, the OCP is using ivermectin to reinforce--not replace--the air borne vector control effort.

As part of Phase IV, each country has prepared a plan for "devolving" the responsibility for long-term disease monitoring and spot control onto the affected countries' national health systems. In the original seven control zone where control started in 1974, the OCP's activities focus on training national researchers to take responsibility for long-term disease monitoring and ivermectin distribution. In the extension zone where the control program started later (1986-1988), the OCP supervises training and active control through a combination of ivermectin and aerial spraying.

### **Socio-economic impacts**

The literature provides clear evidence for economic success and the extremely high rates of return on the initial donor investment in control (McMillan, Painter, and Scudder 1992). One of the most vivid examples is the substantial increase in cotton production in the isolated Niangoloko subsector in southwest Burkina Faso. Cotton production in the Niangoloko region grew from 50 tons in 1985-1986 to 500 tons in 1987-1988--largely due to Burkinabè migrants returning from the economically depressed Côte d'Ivoire and settling into the Leraba and Comoe river basins. Similar large increases in food and cash crop production have been associated with rapid new lands settlement in the Mo Plain and near the FED-Agbassa Project in Togo, and near the AVV planned settlements in the Upper White Volta or Nakambe River basin of Burkina Faso. The associated increase in production and disposable income is apparent from a substantial increase in the size and activity of regional

markets since 1974. A similar increase in the number, size, and activity of area markets was observed in the river basins near Solenzo in western Burkina Faso, and near Diola in southern Mali. Since 1974, Solenzo and Diola have become major centers for cotton export and technological innovation.

It is important to emphasize, however, that each of these success stories evolved in river basins where new lands settlement was "assisted." This assistance involved NGO and government policies which either intentionally — or unintentionally — provided complementary basic services and infrastructure. The dramatic increases in cotton production at Niangoloko, Solenzo, and Diola, for example, are related to the substantial investment of the French and national governments in cotton research and extension. At the core of the AVV and FED-Agbossa Projects' success was an expensive array of planned settlements and support infrastructure. Similarly, the new production possibilities in the Mo Plain were made accessible by major road and bridge construction projects.

Unfortunately, the planning associated with this type of complementary investment for the OCP river basins is hampered by the fact that, although the river basins have great agricultural potential, they are also problem prone. Their problem prone nature relates to a number of factors.

1. The historically isolated river basins usually have little in the way of basic infrastructure, such as roads, schools or health facilities.
2. Onchocerciasis is never the only health hazard. The presence of other health hazards (e.g. human and bovine trypanosomiasis, malaria, guinea worm) is often unknown due to the lack of population in the area, and further exacerbated by: (a) the meager supply of government and NGO sponsored rural health services into these isolated areas, and (b) the settlers' removal from familiar healers and medicinal plants.
3. Access to safe potable water is often difficult due to deep water tables.

4. **There is also a strong propensity for land tenure disputes due to the fact that although many of the river basins have remained sparsely occupied (with the gross exception of Mali), they were never unclaimed.**

**Land use planning is further complicated by the fact that the river basins have traditionally been one of the most important sources of grazing and water for the Sahel's transhuman (migratory) livestock. The valleys have also played an important role as transit zones for sahelian animals bound for coastal markets. Other land use problems stem from the river basins' high concentration of protected forests and wildlife.**

### **C. Methodology**

**The United States Agency for International Development (AID) has been the lead bilateral donor for the OCP since the first donor conference was convened in 1973. AID has also been one of the most vocal donors in discussions of long-term devolution and follow-up planning. AID/Washington (AID/W) was especially concerned that whatever follow-on activities AID supports should be integrated into the existing USAID country strategies. It was in this context of "focus and concentrate," and the need to promote follow-up planning within the context of the existing USAID country strategies, that the AFR/ONI and R&D/H divisions of AID/Washington proposed the current activity.**

**The goal of the activity was two fold:**

1. **to increase USAID mission awareness of river blindness, the river blindness control program, and some of the new development opportunities and problems created by onchocerciasis control; and**
2. **to discuss the activities planned under the mission's country strategy and areas of potential overlap between these activities and the new opportunities and planning problems being created by onchocerciasis control.**

Six USAID missions (Burkina, Côte d'Ivoire, Ghana, Guinea, Niger, Senegal) and the regional headquarters of REDSO/WCA at Abidjan were visited between November 1 and December 23. Each mission and relevant division of REDSO/WCA was informed of and given copies of the following documents:

- the most recent report of OCP devolution activities in the country (where such a report exists);
- the USAID (Kelly et al. 1986) and World Bank (Benton and Skinner 1990) sponsored economic analyses of the cost-benefits of onchocerciasis control;
- the World Bank report, The Onchocerciasis Control Programme in West Africa: A Long-term Commitment to Success (Liese et al. 1991);
- the OCP report, Report on the Evaluation of the Socioeconomic Impact of the Onchocerciasis Control Programme (OCP 1986);
- relevant sections of the Huntings Technical Services, Ltd. reports (Huntings 1988a,b,c,d) which synthesize the existing base of information on soils, vegetation, and migration patterns for that particular country;
- relevant country report or report sections from the OCP Land Settlement Review which describe settlement trends and processes (Akwabi-Ameyaw 1989; Koenig 1989; McMillan, Nana and Savadogo 1990; Painter 1990; or Buursink and Painter 1989); and
- the Final Report of the OCP Land Settlement Review which synthesizes global settlement processes and trends for the entire eleven country control zone (McMillan, Painter, and Scudder 1992).

Advance copies of these documents were sent to all missions in addition to those distributed during the visit. In addition, a debriefing packet was provided which included a fact sheet on river blindness, a two page abstract of the OCP final report, and (when possible) copies of the executive summary of the OCP report for that country as well as

**other background information. This briefing packet was presented to each person who attended the presentations or one of the follow-up meetings.**

**One to two keynote presentations was given per country visit. The keynote sessions were usually followed by smaller sessions with individuals who were not able to attend the plenary. Each presentation was adapted to the special needs and concerns of the country's USAID mission strategy and different disciplinary sub-groups within the audience. This was followed by discussions with the directors of specific USAID programs and projects. The goal of these discussion was to assess some of the implications of the OCP and socio-economic impacts of onchocerciasis control in that country for specific USAID programs and projects.**

**Finally, a brief synthesis of the results of this research and discussions was drafted and discussed with the Mission Director and/or coordinator(s) before leaving the mission. Each report (see Section III) described:**

- 1. the relevant information on the history of river blindness and river blindness control in that country;**
- 2. the existing literature on socio-economic and environmental impacts of onchocerciasis control in that country;**
- 3. the country strategies and programs; and**
- 4. an analysis of areas of potential overlap between the activities being undertaken as part of these mission strategies and the new opportunities and problems being created by onchocerciasis control.**

**The REDSO/WCA report focused on an analysis of broad regional trends and recommendations for follow-up activities.**

## **Outcome of Activities/Findings: Country Strategies**

Although USAID supports a wide variety of projects and programs in the six countries visited, only one of the active projects (the USAID/HKI Project in Niger) was explicitly concerned with onchocerciasis. Nevertheless, an analysis of the existing portfolio shows many areas where present and proposed activities promote and sustain development in areas affected by onchocerciasis control.

**Burkina Faso.** Almost the entire southern half of Burkina Faso, and all of the country's major river basins, are affected by onchocerciasis control. In Burkina, the USAID ARTS (Agricultural Research and Training Support Project) supports training and research within the National Institute for Agricultural Research and Studies (INERA). This project represents one of the best opportunities for increasing INERA's awareness of the new opportunities and constraints that control created for the dissemination of new crop varieties, soil conservation techniques, and mineral and organic fertilizers. Other USAID projects, like Food for Peace, the FEWS Project, and the proposed CLUSA project to promote sound environmental management in four provinces (Ganzourgou, Boulougou, Zoundweogo, and Houet) intervene in OCP river basins that have experienced and/or are likely to experience rapid new land settlement.

**Côte d'Ivoire.** Probably the single most important area of potential overlap in Côte d'Ivoire is to address some of the key national and regional (West African) issues that increased immigration into the OCP river basins is creating in that country. In light of this, a list of follow-up environmental, WID, and land tenure projects that would build on the existing base of REDSO expertise that exists in Côte d'Ivoire was completed. The most important area of overlap involves the mission's existing efforts to "activate" the rural health system by targeting management, planning and supervisory training. These training activities are reinforcing the Ministry of Health in a manner that benefits long-term river blindness surveillance and control.

**Ghana.** USAID/Ghana's country strategy is heavily focused on broad based policy reforms to achieve market oriented economic growth, and to enhance the quality of the primary education and health systems. The largest area of existing overlap with socioeconomic development in the

OCP river basins is the Ghana Primary Education Program. Almost all the highest potential rural agricultural areas in the impoverished northern areas where this program intervenes were once affected by river blindness. While not explicitly focused on the north, USAID's Trade and Investment Program (TIP) and PL480 funded initiatives in Women in Development and Natural Resource Management might be used to support future follow-up planning. At USAID's request, contacts were initiated between the National Onchocerciasis Secretariat (NOS) and the German and Canadian aid organizations that are active in the north.

**Guinea.** All three of USAID/Guinea's infrastructure projects intervene in areas near or in, isolated river basins with high economic potential. Here the most pressing identified need is to predict how the recent extension of onchocerciasis control is likely to increase spontaneous new land settlement and deforestation. The planning is underway to support the development of a government research facility to coordinate the needs assessment and environmental impact of road building. This facility could be an important institution for policy analysis throughout the OCP region. Although the three watersheds in which the Natural Resource Management Project (NRMS) intervenes are not in areas that were heavily infected with river blindness, the project offers a means of ensuring that information on the OCP and socioeconomic planning is incorporated into the national effort to develop the country's watersheds. In response to the mission debriefing, the NRMS staff recommended that they support a joint Government of Guinea/OAU (Organization of African Unity)/USAID workshop on "Health and the Environment" to address these and similar concerns. Other areas of potential overlap can be best addressed by the national OCP coordinator's providing up to date information on OCP activities and the program's socio-economic impact to staff associated with the PVO/NGO Needs Assessment Project, the Guinea Economic Policy Reform Project, the Guinea Basic Education Program/Project, and the Human Resource Development Project.

**Niger.** By far the strongest direct link between the Niger mission's programs and the OCP is an institutional development grant to Helen Keller International (HKI) to support devolution. Nevertheless, the project's administrators emphasized that these devolution activities would be easier to "sell" if they were reinforced with information on the socio-economic impacts of control in Niger and other countries. Several staff in the mission's agriculture, environment, and health programs recommended a small inter-donor/government conference to assess what types

of planning are underway in the control zone and to identify areas not currently being covered. It was suggested that this type of conference might be funded through the Mission's DPM (Disaster Preparedness Monitoring) Project funds. Another concrete recommendation was to develop a packet of information on Niger's OCP river basins through the existing USAID funding for the AGRHYMET (Agrometeorologie/Hydrologie/Meteorologie) project.

**Senegal.** One of the strongest areas of potential overlap between USAID's existing portfolio and socioeconomic planning in the OCP river basins in Senegal is to enhance the chances that the team which designs the upcoming Community Based Natural Resource Management Project (CBNRM) is cognizant of the existing literature on settlement trends and control in Senegal Oriental. Staff mentioned that other projects like the Reforestation Project, the Natural Resource Based Agricultural Research Project, and the PVO/NGO Support Project are all engaging in activities in the Tambacounda and Kédougou areas where the direct response to control in terms of increased new lands settlement is expected to be greatest. One recommendation was to increase the project administrator's information about control through better contacts with the OCP national coordinator based at Thiès (where two of these four USAID projects are based). In response to the mission presentation and follow-up discussions, the mission agreed to support the participation of one USAID staff member on an OCP devolution advisory committee as a "window" for increasing USAID/Senegal awareness of control and its socioeconomic impacts.

**REDSO/WCA.** By virtue of its historic and ongoing, sustained contacts with USAID missions in every one of the eleven OCP countries, REDSO/WCA plays a vital role in any long-term effort to keep missions appraised of the onchocerciasis control program and its socioeconomic impact. Staff emphasized the need for:

- follow-up contact with the mission;
- a small, tailored library collection of materials which are updated periodically and indexed within the bilateral missions and relevant divisions of REDSO; and
- a presentation at the REDSO/WCA pre-scheduling conference workshop.

## **Outcome of Activities/Findings: Identified Needs**

A cross-cutting theme was the need for better information about the OCP and its socio-economic impact if project managers are to capitalize upon the new opportunities being created by river blindness control.

### **Need for better information**

Although a few of the health and population staff were familiar with the control program's brochures, most of this information talked about the program's medical success--not the socio-economic or environmental impact of that success. Especially important is the need for country-specific information on: settlement trends, the existing level of investment in disease control, the long-term costs of surveillance and control, the cost-benefits of control at different points in the program, and the level of infection pre- and post-control. Staff emphasized the need for an objective weighing of the positive as well as the negative aspects of the experience. These different types of information are necessary both to persuade donors and the national governments to be interested in follow-up planning and to galvanize a solid base of donor and national government support for devolution. Most of this information can be provided through the OCP and the World Bank Onchocerciasis Unit.

### **Identified needs which can probably be met through the existing funding to the OCP and World Bank Onchocerciasis Unit**

Identify Resident Resource People within Missions.

The USAID, World Bank, GTZ, and Canadian field staff who were interviewed emphasized that the OCP, World Bank, and AID/ Washington should channel information about the program to key resident resource people within the overseas missions. The key USAID resource people should be chosen in collaboration with the Mission or REDSO Director. This type of channeling enhances the chances that these individuals can perform the role of "in house" experts. Care should be given to include more permanent long-term REDSO and Mission staff as well as foreign service officers and technical assistants. The preparation of an initial list of follow-up mission contacts and identified needs for information could be carried out as part of the existing AID/W support for OCP.

### Develop Appropriate Briefing Materials.

- ***Briefing Papers.*** Countries need up-to-date, short briefing papers which assess the state of control and the socio-economic and environmental impact of control in their affected river basins. This is an activity which is beyond the scope of AID/W's existing support for OCP. It is, however, an activity which could be easily developed in collaboration with the OCP (working through the OCP national coordinators) and the World Bank Onchocerciasis Unit.
- ***Oncho News.*** The OCP should attempt to integrate more information on socio-economic development into the popular newsletter, Oncho News, and to work with donors to improve the dissemination of this newsletter to health, agricultural, educational, and environmental officers within West African donor missions. The OCP should attempt to include information in the newsletter about how interested persons and organizations can acquire documents like the OCP Land Settlement Review as well as the growing number of videos and slide sets that have been developed. The inter-country opportunities to exchange training videos for river blindness diagnostic and treatment techniques is especially important.
- ***Extrapolate General Lessons Learned.*** The USAID staff emphasized how even their cursory knowledge of the OCP highlighted a number of general "lessons learned" that could be applied to other types of health and agricultural development. These include: the OCP's strong tradition of investment in research and development; the impact of national participation (or lack there of) in the early OCP and its affect on devolution; the differential success of different institutional arrangements for control in the core control and extension counties; the role of national health and land tenure policies; and even the early involvement of influential international leaders like Robert MacNamara. Other lessons which have broad applicability include: (1) the need for longitudinal assessment of project results (i.e. that the recurrent costs of the project and recorded rates of return were very different in different time periods); (2) the need to adjust project indicators to this longitudinal

perspective; and (3) the important role of social science research in assessing some of the wider economic, social, and environmental impacts of a project.

- ***Innovative Materials.*** USAID staff suggested that the OCP might consider developing briefing tapes (20-30 minutes in duration) that synthesize key points from important briefing papers. USAID and national OCP staff could listen to these tapes during their lengthy periods of work-related travel.

### **Identified Needs that USAID Might Consider Funding As Part of Its Existing Support for the OCP, Agriculture, Natural Resource Management and Health**

- ♦ ***Organize a Presentation on Socio-economic Issues Created by the OCP at the 1993 annual REDSO/WCA Scheduling Workshop.*** (Actors: USAID, OCP and the World Bank Oncho Unit)

REDSO/WCA recommended that a short follow-up workshop on "Socio-economic Issues Created by the OCP" be organized for the 1993 USAID scheduling workshop in early November. Ideally, this workshop could provide a forum for mission representatives to present an up-date on the activities described in this report.

- ♦ ***Organize a Regional USAID or Donor Workshop on Socio-economic Issues Related to River Blindness Control.*** (Actor: USAID funds for OCP or regional workshops on agriculture, natural resource management, and health)

To date, most OCP-sponsored conferences have focused on training and information for the affected national governments. When donor representatives have been invited, they have typically been representatives from the national offices — not local mission staff — who formulate basic policy in response to broad initiatives which emanate from the top. One recommendation was for AID/W to support a regional conference on river blindness control and/or presentations at any regional USAID workshop on agriculture, natural resource management or health.

The workshop would consist of presentations and field trips to illustrate the new opportunities and constraints being created by onchocerciasis control as well as displays of new briefing materials, videos, and documentation on the program and socio-economic planning. More long-term field staff as well as US foreign service officers should be invited.

- ◆ *Fund Training in Health Economics* (actors: USAID and OCP)

Each mission listed high quality information on the economic cost-benefits of control and similar types of health programs as a top priority. This appears to be one area where USAID missions could consider targeting some of their existing funds for graduate training. Health economics is the basic starting point for any coherent discussion of health policy and/or follow-up planning in the OCP river basins. This is a training area that the socioeconomic component of the OCP devolution unit should consider reinforcing.

## **Partial List of Individuals Consulted**

### **Burkina Faso**

**Visit Coordinator: Jatinder Cheema, Acting Director, USAID, Ouagadougou**

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### **(COTE D'IVOIRE AND REDSO/WCA)**

(\* individual meeting at another time as well)

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David Mutchler,\* Deputy Director  
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**Barry Souleymane, Regional HIV/AIDS Advisor, HHR**

**Bineta Ba, Regional Health Cost Financing Advisor, HHR**

**Nancy Nolan,\* Regional Population Advisor, HHR**

**Sif Ericsson,\* Maternal and Child Health Advisor, Côte d'Ivoire Bilateral Project**

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**Friday, December 18, 1992 (Plenary Session)**

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**22**

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**Mbuyi, Tshingoma Mukendi, Food and Agriculture Organization (FAO),**

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**December 15, 1992, Plenary Session, USAID**

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## **Part II: Country Reports**

## 1. Burkina Faso

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### A. OCP Status Review

Eighty percent of the territory of Burkina Faso, or 235,000 km<sup>2</sup>, falls within the area covered by the Onchocerciasis Control Programme (OCP). Of this total area, 41,000 km<sup>2</sup> of Burkina's river basin land was considered uninhabited and uncultivated before the OCP began in 1975. The river basins straddle two broad climatic zones: a northern sudanian region with an average annual rainfall of 600-800 mm, and a southern sudanian region with an average annual rainfall of 800-1,200 mm. Both agroclimatic zones are characterized by a single rainy season and a dry season that may last from six to eight months. The river basins have greater potential for rainfed agriculture than the adjacent Mossi plateau. Moreover, the basins include almost all of the land deemed to have potential for large-scale irrigation. The water resources and vegetation of the valleys have also played an important role in West Africa's livestock industry--both for grazing and for transportation to the coast from the landlocked cattle-producing areas of Burkina, Niger, and Mali.

In an effort to direct the projected immigration into the underpopulated river basins, the Burkina government created a special national agency, the Volta Valley Authority or AVV (*Autorité des Aménagements des Vallées des Volta*) in 1974. By Presidential decree, the AVV was given complete control of approximately 30,000 km<sup>2</sup> (Map 1.A). In theory this mandate eliminated all preexisting land claims.



The early AVV targeted river basins which had good agricultural potential and few specialized industrial or irrigation projects. The first settlements were created in the Basins of the Nakambe and Nazinon (ex-White and Red Volta) rather than the Mouhoun (ex-Black Volta), large areas of which already benefitted from regional programs to promote commercial cotton production.

Planners were correct in assuming that the successful control of river blindness would increase immigration. They erred, however, in assuming that this settlement could be controlled and directed via planned settlements and legal texts. By 1979 the ratio of spontaneous to sponsored settlement in the designated zones for AVV intervention was at least ten to one. These high rates of so-called illegal spontaneous settlement led the AVV to advocate a more decentralized program of assisted, spontaneous new lands settlement after 1982 (see AVV 1985; McMillan, Nana, and Savadogo 1990). These same experiences played a major role in the design of the 1984 Land Tenure and Agrarian Reform Act and the new national program for village land management (PNGT or *Programme National pour la Gestion des Terroirs*). In 1989 the AVV was transformed into ONAT, the *Office National d'Etude et d'Aménagement des Territoirs*. In its new role as an office under the Ministry of Agriculture, ONAT (ex-AVV) no longer has a special mandate for the OCP river basins.

Settlement and development of the OCP river basins has had a major impact on economic development and natural resource management in Burkina. Research shows a sixfold increase between 1974 and 1983 in the area cleared for agriculture along the Mouhoun River Basin (ex-Black Volta) and its tributaries (Hervouet et al. 1984) and a threefold increase in the less isolated areas of the Nakambe and Nazinon (ex-White and Red Volta) during the same time period. The percentage increase was lower in the Bougouriba and Comoe-Leraba Basins--areas which are more distant from the major rural population centers and where commercial cotton production is less widespread. The World Bank argues that these high rates of new lands settlement were a major factor in Burkina's ability to keep food production apace with population growth in the 1980s (1989 World Bank, Economic Memorandum). Other researchers state that Burkina suffered less from the 1983-1984 drought than from earlier droughts because of the associated increase in food crop production (Hervouet et al. 1984).

The chief change in immigration trends after 1983 was a shift toward increased settlement in Burkina's southernmost basins. Two factors which influenced this were: (1) increased population pressure in the more accessible northern basins that experienced rapid new lands settlement during the first decade of control; and (2) the large number of immigrants who were forced to return to Burkina Faso in response to the late 1980s downturn in the Côte d'Ivoire economy.

## **B. Mission Strategy/Objectives**

The USAID mission in Burkina Faso has one of the lowest mandated Development Fund for Africa (DFA) per capita levels in the eleven country OCP area. The principal objectives of the current country development strategy are (USAID/BF, December 1991, "Economic Assistance Program"):

1. to increase economic growth by increasing agricultural production through research and human resources development; and
2. to improve the quality of life of Burkina Faso's rural population by improving their health status and reducing population growth.

## **C. Key Discussion Points**

### **1. Analysis**

The mission is in the process of defining a new strategy which includes natural resource management and the use of the existing portfolio of health and agricultural projects to promote sustainable natural resource use. Rapid, uncontrolled new lands settlement and forest clearance is probably the single most important environmental issue facing the country. While this cannot be attributed to onchocerciasis control alone, the fact that control has eliminated one major threat to more intensive settlement and development of the river basins is certainly a contributing factor.

**One USAID staff member argued for the need to distinguish between:**

- 1. The primary investments that attract settlers to given river basin (roads, commercial crop opportunities, access to urban centers and markets); and**
- 2. The secondary, reinforcing investments that encourage settlers and indigenous hosts to reinvest the economic returns to agriculture in the development of more cash and labor intensive land use practices (e.g. education and health services, crop and livestock research programs, and managed forestry projects).**

**It was suggested that USAID/Burkina Faso target certain problems in the second group.**

- ◆ One priority area where USAID has been heavily involved since 1977 is crop and livestock research. The first USAID-sponsored farming systems research project, the Purdue West Africa Farming Systems Project (1977-1980), included three research programs in the OCP river basins which were jointly sponsored with the AVV (see Murphy and Sprey 1980; McMillan 1983). Since then, the USAID's farming systems research has not been explicitly concerned with the high potential river basins covered by control. This can be attributed to the fact that it was the AVV--not the National Institute for Agricultural Research (INERA)--that was charged with all research and development in Burkina Faso's OCP river basins between 1974 and 1989. Since the AVV's reorganization into ONAT in 1989, this has not been the case. Nevertheless, it is argued in the OCP Land Settlement Review that the lack of an appropriate technology package is probably the single most important factor affecting the settlers' decisions not to invest in sound resource management of the upper Nakambe (ex-White Volta) during the first fifteen years of AVV sponsored settlement (McMillan, Nana, and Savadogo 1990).**

**The central plateau Farming Systems Research team supported under the USAID's ARTS (Agricultural Research and Training Support) Project is already involved in on-farm testing and training to develop more appropriate technology for the central plateau zone. This work**

could be expanded to address the special planning opportunities and constraints of the river basins. In the western zone, the issue is less one of technological development than one of combining the existing cotton technology with better livestock and forest management practices in the once infected river basins now undergoing rapid new lands settlement.

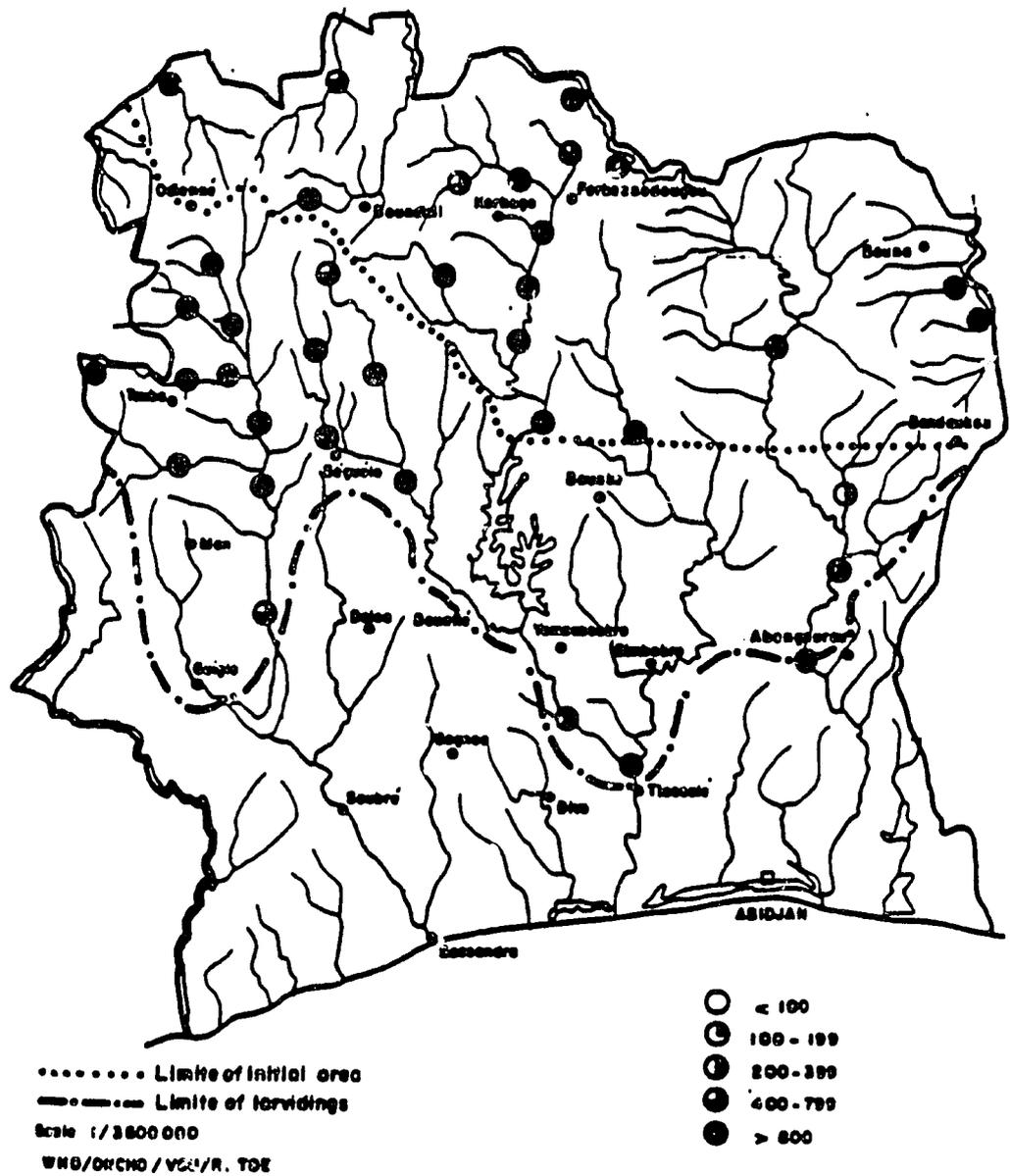
- ◆ A second USAID identified need, is the need to publicize the planning lessons learned during the first two decades of onchocerciasis control. Until 1989, the AVV coordinated all settlement and follow-up planning. It would be beneficial for A.I.D./Washington to explore ways to apply the lessons learned from the AVV's experiences to other countries. If, additional funds become available, it would be useful to earmark funds for this.

## **2. Summary**

Because of the large area of land with high agricultural potential affected by the OCP, the successful control of river blindness impacts upon every aspect of the USAID's existing and projected country strategy.

- ◆ The ARTS project is already engaged in relevant research to develop more sustainable crop and livestock practices in the central plateau zone. This has direct relevance for any long-term strategy to realize the full economic benefits of USAID investment in control.
- ◆ Other points that emerged from mission discussions include recommendations:
  - for a half-day workshop to familiarize mission staff with the OCP, its effects on settlement and development in Burkina Faso, and its implications for the existing mission portfolio;
  - for the projected reorganization of Burkina Faso's Food for Peace Program to address some of the ways that the Food for Work and school lunch programs could support the development of schools in isolated areas of new lands settlement;

- for the FEWS (Famine Early Warning Systems) project to increase their awareness of the impact of the OCP on food security issues in certain provinces and to include this information in their vulnerability assessment write-ups in the FEWS regional newsletters;
- for the Mission's forthcoming CLUSA project to recognize that all four of the provinces where they plan to intervene were once highly infected with river blindness and that three of these provinces (Ganzourgou, Boulogou, Zoundweogo) were also sites of earlier AVV interventions;
- for the Mission to establish a reference collection on the OCP with appropriate supervision and publicity within the mission; and
- if additional funds earmarked for OCP support become available, for USAID/Burkina or AID/Washington to consider supporting a series of collaborative activities with ONAT which highlight the lessons learned from the AVV for future development planning in areas of new lands settlement in Burkina Faso and other areas of West Africa.



Source: AVV 1985c:5 cited in McMillan, Nana, and Savadogo 1990.

## 2. Cote d'Ivoire

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### A. OCP Status Review

#### 1. The control program

The initial limits of the OCP in Côte d'Ivoire (Map 2.A) were drawn to include the most serious foci of savanna onchocerciasis as it was known in 1974 (OCP 1990). In 1978/79 it was decided to extend the project 110,000 km<sup>2</sup> to include the southern foci from which savanna vectors were leaving to reinvade the original core control zone.

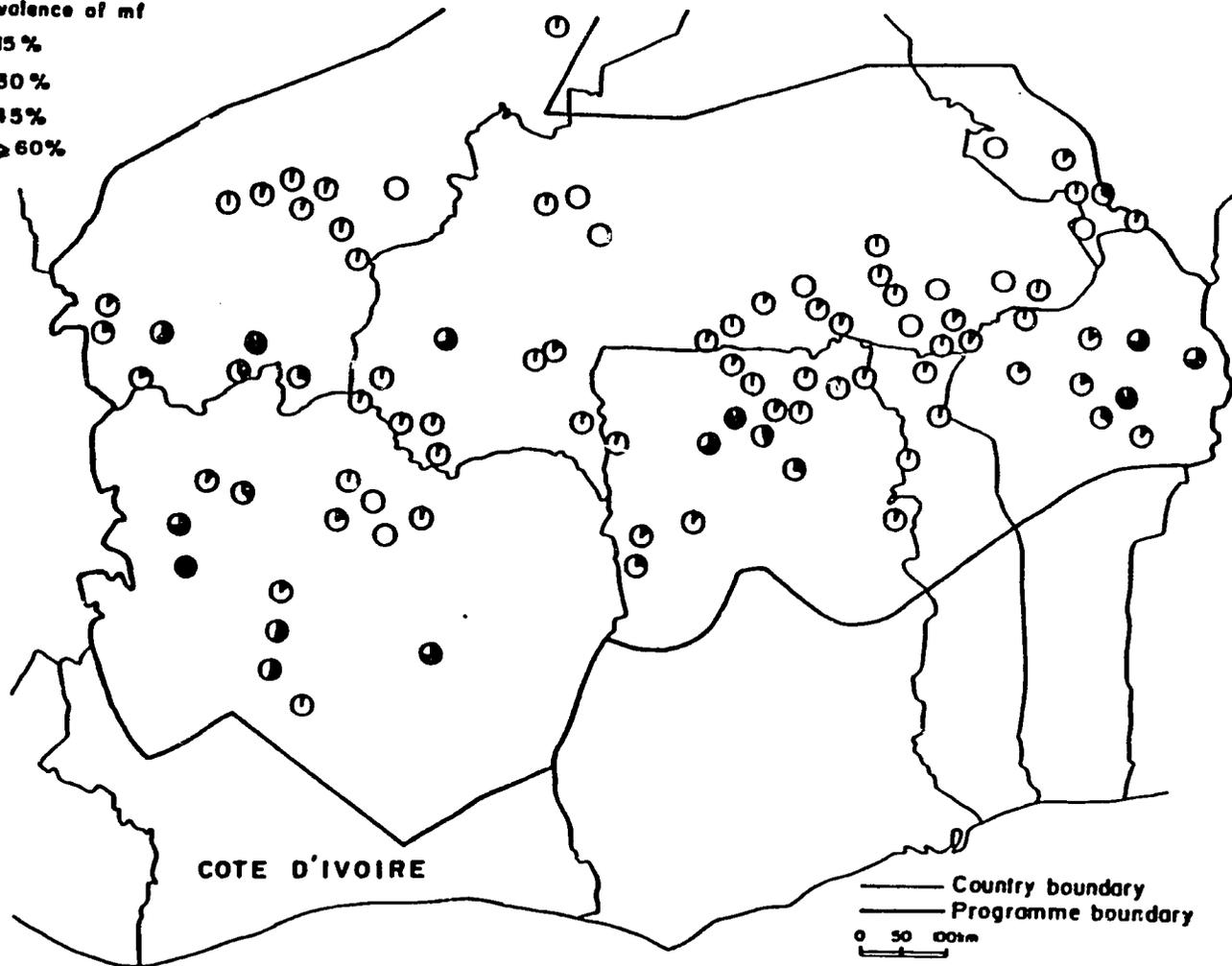
Today, about 80 percent of the territory of Côte d'Ivoire is covered by the centrally funded, WHO-executed Onchocerciasis Control Programme (Maps 2.A). In 1992 the national government began a more limited program to control the less debilitating forest variety of onchocerciasis in the lower 20 percent of the country. Thus, in contrast to other countries in West Africa where long-term onchocerciasis control is confined to specific areas, onchocerciasis was a problem throughout Côte d'Ivoire.

Today, river blindness is no longer a public health threat in the far north and savanna zones (Map 2.B). Although the savanna belt region reports higher residual levels of infection (due to control starting at a later date) the rate is still below the levels where transmission is a problem. The current plan is to continue spot surveillance and treatment with ivermectin through the Côte d'Ivoire Onchocerciasis Control Programme, with supplementary funding for travel indemnities, vehicles, vehicle maintenance, gasoline, equipment and logistical support from the centrally funded OCP until 1997. After this time, the full responsibility for onchocerciasis control is expected to revert to the Côte d'Ivoire Ministry of Health.

ANIVCA

Prevalence of mf

- 15%
- ◐ 30%
- ◑ 45%
- ≥60%



To maintain the existing level of control in the north, and to further reinforce the ongoing level of control in the middle and forested zones will require permanent surveillance and spot treatment of infections. The most recent (1992) devolution plan calls for long-term surveillance and control activities to be coordinated with national programs to survey and control some of the other economically important diseases including guinea worm, schistosomiasis, trypanosomiasis (human sleeping sickness), and leprosy. These activities are planned through the national health system.

## **2. Socio-economic impacts**

The high incidence of onchocerciasis is one of many factors which has inhibited development in the north of Côte d'Ivoire. Other factors include the area's isolation, less favorable climate and the gross lack of basic infrastructure and services. One result is that the recorded per capita income in the north was \$100 per annum compared with \$300 per annum in other parts of the country (Huntings 1988:F111). Efforts to address these regional inequalities through the targeted development of small-scale irrigation and agro-industrial processing have been hampered by a variety of institutional and technical constraints as well as the area's isolation and the high incidence of river blindness in the major river basin lands (Huntings 1988:F91-F137; Buursink and Painter 1990:7-20).

The successful control of river blindness in Côte d'Ivoire's north has not had an immediate and direct effect in terms of increased regional development and decreased out-migration. Nevertheless change is occurring due to: 1) the limited revitalization of rice production in the older AVB (Autorité pour l'Aménagement de la Vallée du Bandama) (see Buursink and Painter 1990:13-18) and non-AVB irrigation schemes; 2) increased farmer interest and investment in cotton production; 3) government attempts to manage the area's gold and diamonds; and 4) the downturn in the national economy due to a drop in cocoa and coffee prices which is pushing more and more non-Ivorian immigrants to leave the southern urban and plantation areas to explore opportunities in the savanna region and the north. One result has been a slight increase in the rate of annual population increase in the north (suggesting less out-migration and small amounts of in-migration as of 1988) (see Huntings 1988) as well as an increase in the size of two major area markets (Ouangolodougou and Ferkessedougou) (personal communication, Dr.

Pierre Brika, December 21, 1992); growing conflicts between Ivorians and non-Ivorian migrants over fishing and grazing rights; and increased pressure on the region's protected forests (especially the massive *Parc National de la Comoe*).

## **B. Mission Strategy/Objectives**

USAID's existing portfolio in Côte d'Ivoire focuses on two projects:

1. the Health and Family Planning Project; and
2. the Municipal Development Support Project.

The mission is in the process of drafting a new "Concept Paper" to be completed by July-August 1993. The recent issues and options paper for The Côte d'Ivoire program (Rogers 1992) emphasized the following three goals:

1. promote international competitiveness by supporting structural adjustment;
2. draw on REDSO/WCA's previous experience and strengths in Côte d'Ivoire while concentrating on Development Fund for Africa (DFA) Strategic objectives that are within the Mission's manageable interest; and
3. be flexible in terms of total funding level, and the mixture of project and non-project assistance.

## **C. Key Discussion Points**

### **1. Analysis**

- ◆ The Côte d'Ivoire mission is in the process of drafting a country strategy. Probably the single most important area of potential overlap between USAID's existing activities in Côte d'Ivoire and socio-economic planning in the OCP river basins is for this paper to address some of the environmental and region-

al (West African) trends which affect Côte d'Ivoire's development. That the mission should place a high priority on this theme is justified in light of the evidence that: (a) 100 percent of the country is affected by either the savanna or forest varieties of river blindness; (b) Côte d'Ivoire's historic role as a major source of reinfection of the core OCP control zone; and (c) the various ways that control is affecting regional trends in transhuman livestock and labor migration.

- ◆ The successful devolution of river blindness surveillance and treatment to the new decentralized rural health system is critical to the long-term success of control. Unfortunately rural health is one sector where Côte d'Ivoire lags behind other West African countries. In 1980, UNICEF estimated that only 30 percent of the population had access to health services — 61 percent in urban areas and 11 percent in rural areas. To address this problem the government established a new decentralized rural health system in 1991. A series of recent policy documents on health and sanitation issues have listed this decentralization process as one of government's top priorities for health.

USAID/Côte d'Ivoire supports this decentralization process through the Health and Family Planning Project's support for management, planning and supervisory training. These training programs target the *medecins chefs* who manage the country's twenty-six rural health centers. Each center covers one to five departments. Plans are under way to eventually expand the number of rural health centers to fifty-one in each department.

- ◆ Both donors and the national government need better demographic data on: a) immigration and emigration trends (within Côte d'Ivoire, from Côte d'Ivoire to other countries, and from other countries to Côte d'Ivoire); as well as b) information on which river basins in the savanna and the north are undergoing active settlement as a result of control. Both types of information are important for long-term control of river blindness as well as other diseases which are affected by population movements, and for the targeted development of municipal, health, agricultural, and environmental services. This type of demographic analysis would be a natural addition to the existing

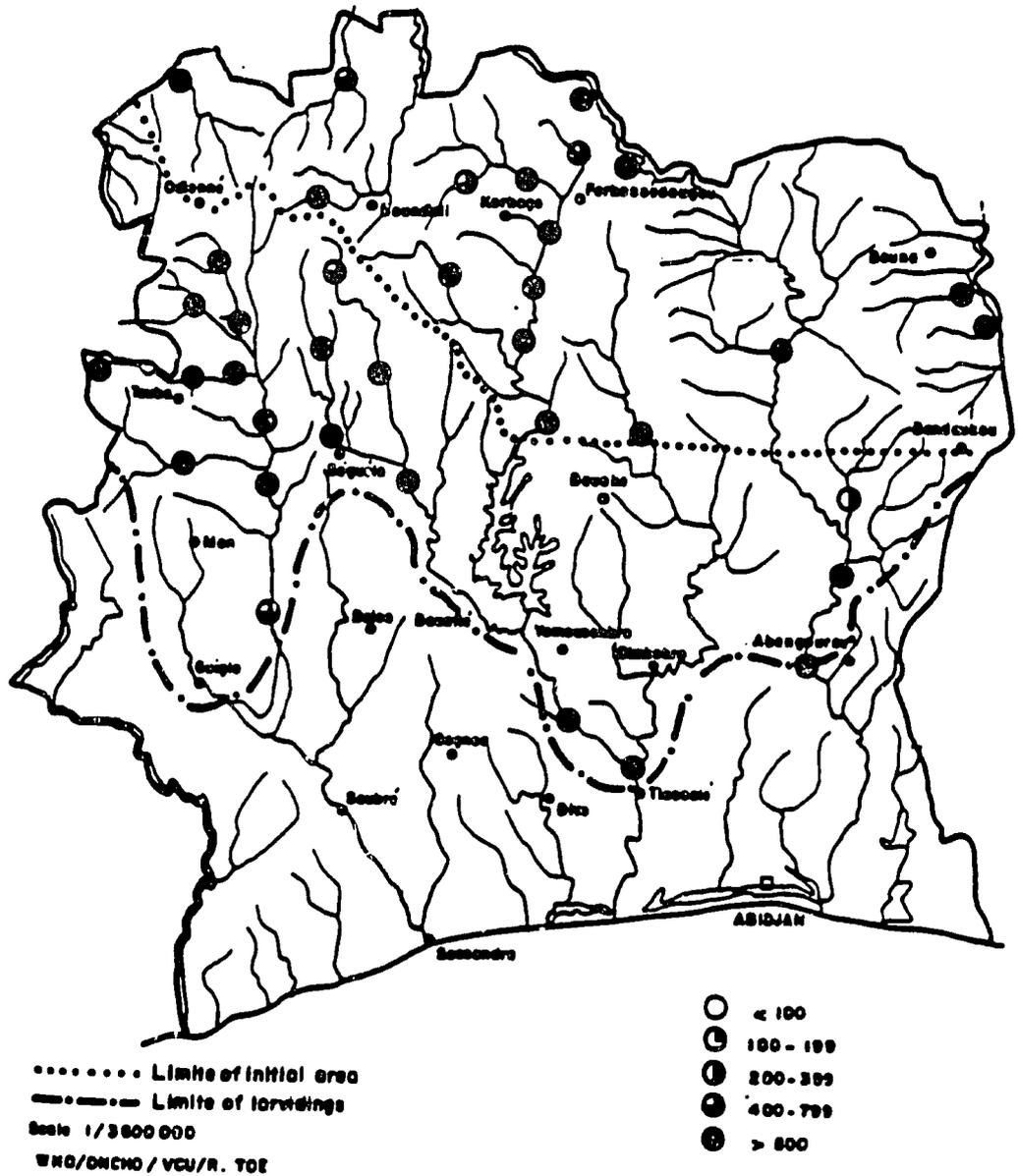
**USAID funding for health and family planning and for municipal development in Côte d'Ivoire.**

## **2. Summary**

- ◆ **A key discussion point emerging from mission interviews was to address some of the new health, environmental, economic, and social issues being created by onchocerciasis control when drafting the forthcoming mission concept paper.**
- ◆ **Other recommendations which could be addressed in the new country strategy follow.**
  - **Continue the mission's existing efforts to target management, planning and supervisory training to improve the administrative capacity of the rural health system.**
  - **Develop natural resource maps based on US supplied Landsat images as a means of directing government and donor attention to the growing problems with forest, pasture, and soil degradation in the northern river basin areas which are experiencing increased new lands settlement. To date, foreign donor attention for environmental planning focuses on the country's endangered rain forests; far less attention has been directed to the growing evidence for spontaneous settlement and "illegal" cutting in the vast protected forests in savanna basins. This assistance would build on the agency's earlier support to the national tele-detection center (Rogers 1992:10). The same technology could be used to examine similar trends in other countries.**
  - **Develop cost-effective methodologies for the design and analysis of rapid reconnaissance and census data to assess immigration flows within, in, and outside the country. This recommendation stems from Côte d'Ivoire's important role as a recipient of immigration from all of the surrounding countries.**
  - **Encourage project design and evaluation activities (including the team involved in drafting the concept paper) to disaggregate data by region and within regions by rural and urban areas. USAID staff described a strong tendency for policy makers and donors to rely on average national figures which may mask the**

substantial variations between regions. These regional differences are especially important in the isolated areas of the north where we can expect increased settlement over the next ten years.

- Encourage the exchange of information about the lessons learned from successful and unsuccessful attempts to modify tenure rights to land, fishing, and pasture areas in other countries. This issue is particularly important in light of Côte d'Ivoire's past success in incorporating huge numbers of non-Ivorian communities and the demonstrated potential for tenure edicts (based on case study evidence from Burkina Faso, Senegal, and Mali) to disrupt the historic mechanisms by which "outsiders" have acquired natural resource rights. The increasingly violent nature of the disputes between Ivorians and non-Ivorians (Maliens and Burkinabè) in the northern river basins where rapid new lands settlement is underway was highlighted as a major concern of the Côte d'Ivoire Ministry of the Interior.

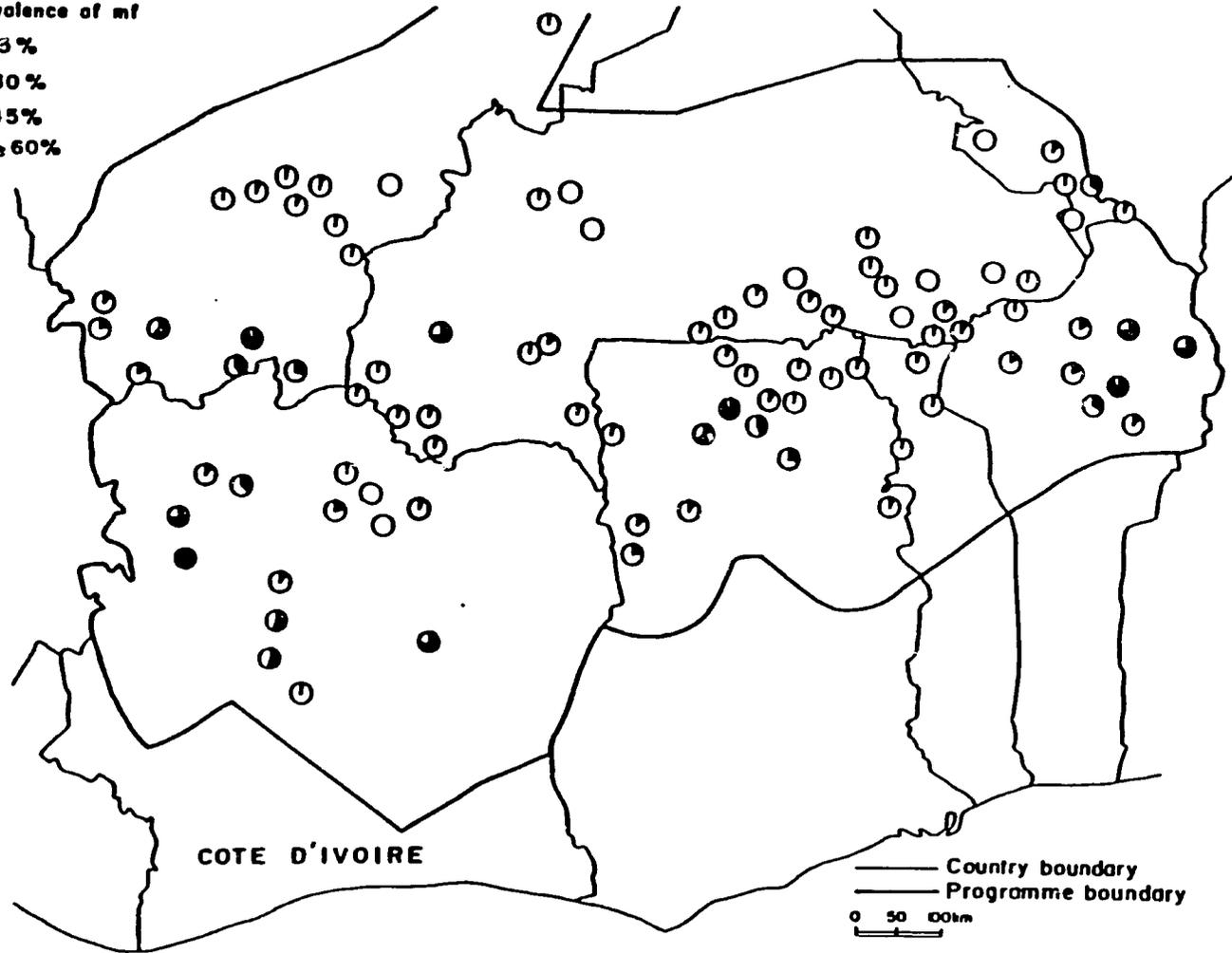


Source: OCP.

ANIVEA

Prevalence of mf

- 13%
- ◐ 30%
- ◑ 45%
- ≥60%



### **3. Ghana**

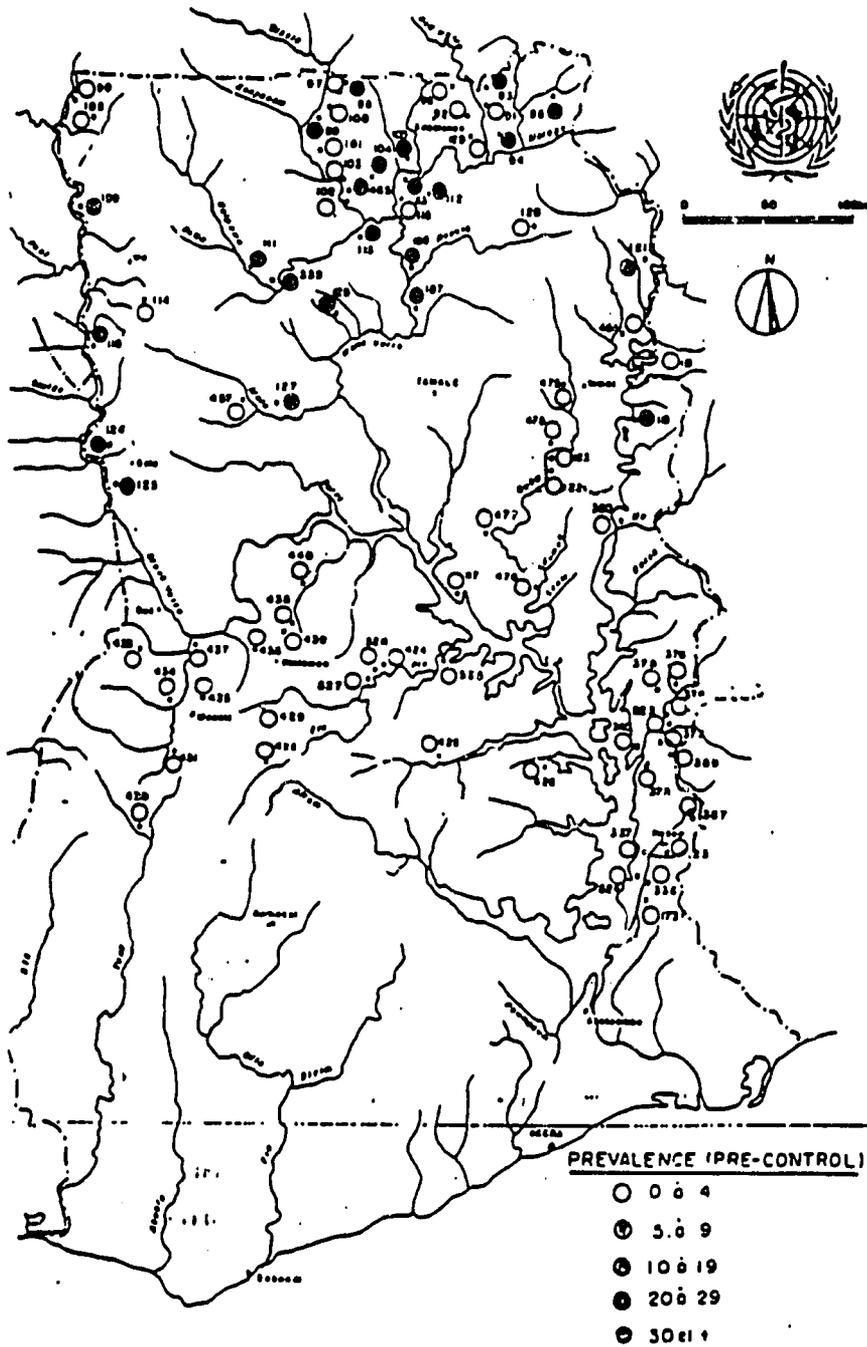
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#### **A. OCP Status Review**

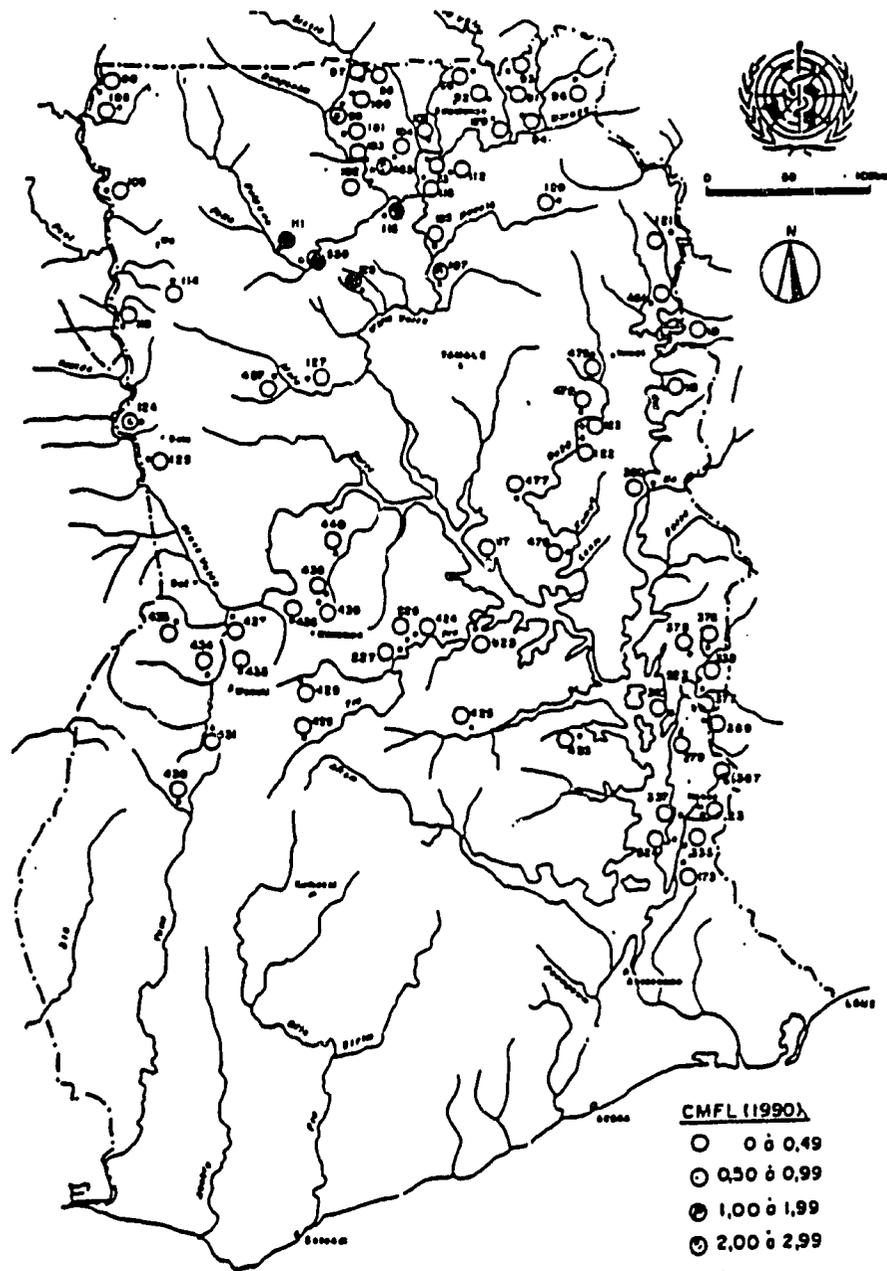
##### **1. The Control Program**

Ghana has the fourth largest area affected by onchocerciasis control. Substantial literature describes the historic impact of onchocerciasis on settlement patterns and development projects in Ghana's north, especially in the Bolgatanga, Bawku, and the Navrongo areas of Upper East, in the vicinity of Wa and the Lawra-Jira-Toopari areas in the Upper West, and around Tamale and Yende in the Northern Region (Patterson 1978; Hunter 1963, 1966; Hilton 1959). These historic studies were confirmed by a 1974 evaluation conducted by the OCP of forty villages along the Black Volta, the White Volta including the Sissili and the Kulpawn, and the Red Volta (Map 3.A).

Today, onchocerciasis is largely controlled in Ghana (Map 3.B). The remaining disease foci (111, 559, 128), where the community microfilarial load was over 3 percent in 1990, were in the isolated basins of the Kulpawn and White Volta. These foci, as well as three other intransigent foci (99, 464, 116), received special treatment in 1990 and are no longer a hazard.



Source: OCP.



Source: OCP

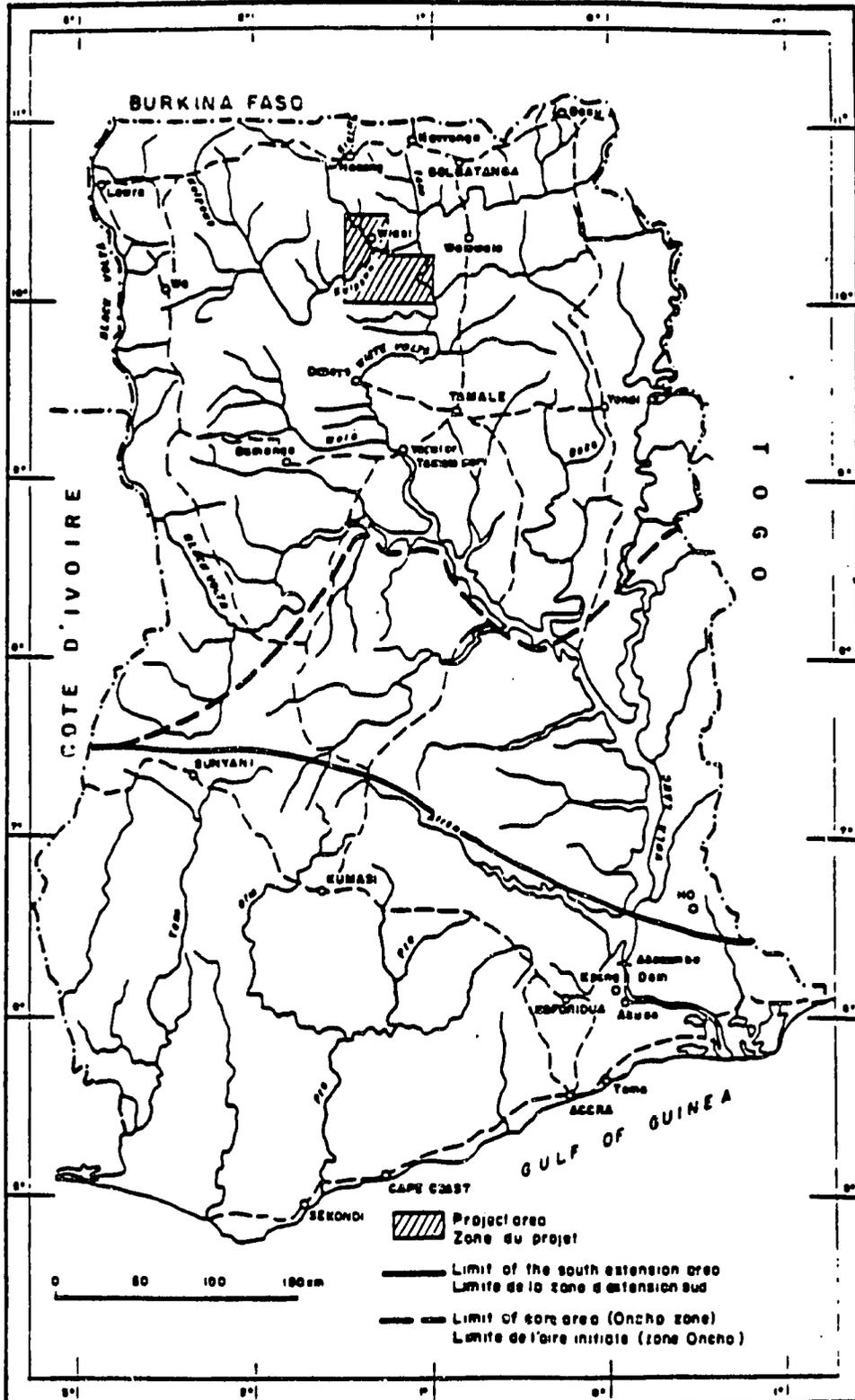
## **2. Socioeconomic Impact**

Although other factors contributed to the under population and chronic underdevelopment of the infected river basins, onchocerciasis was certainly important. Policy makers were, therefore, hopeful that the successful control of river blindness could raise living standards in Ghana's chronically underdeveloped north.

In contrast to Burkina Faso, the Ghanaian government did not opt for a centralized program of planned settlement. In the northern province, these activities have been reinforced by NORRIP (Northern Regional Rural Integrated Program) since 1989; URADEP (Upper Region Agricultural Development Program) was active in the early 1980s but is no longer functional. The lead donors for agricultural, hydraulic, and health development in the three most seriously affected regions (Upper East, Upper West and Northern) are GTZ and the Canadian International Development Agency (CIDA). Other donors include EEC which has a small presence through the GRATIS program which it co-finances with CIDA and the Danes who are involved in health. In the early 1980s the Italians funded a series of agricultural programs. USAID has recently been active in promoting primary schools.

One of the distinctive features of settlement and development in the OCP river basins in Ghana was the decision to create a National Onchocerciasis Secretariat (NOS) to service the National Onchocerciasis Committee (NOC). A critical turning point occurred in 1985 when Ghana's NOS received grants from UNDP and FAO to carry out baseline planning for a pilot project of integrated development in an "L" shaped area of the isolated, high potential Overseas (Map 3.C). Since 1986, the NOS has continued its activities without outside funding. Although the NOS administrators have continued to meet with the regional onchocerciasis committees at least once a year, and as needs arise, with district and village committees, their development activities have focused almost entirely on the "L" shaped pilot project zone in Overseas. One result of these lobbying efforts has been to get government commitment to construct three bridges, 103 kilometers of road, four clinics and permanent water points for twelve settlements in the pilot project Overseas area as part of the 1988-1993, Government of Ghana PIP (Public Investment Programme).

FIGURE G1.1 GHANA - LOCATION MAP  
 CARTE DE LOCALISATION



Despite the large-scale success of control, the rate of river basin resettlement has been less active than anticipated in Ghana. This is not surprising in light of three factors. The first is that Ghana's north has traditionally been an area of out-migration rather than in-migration, as is the case in the majority of areas in Burkina Faso, Mali, Togo, and Benin that are now undergoing rapid resettlement and development. The second is that Ghana's north suffers from an extreme shortage of attractive packages for high yielding rainfed or irrigated crops. The third is the highly unfavorable policy environment which plagued agriculture during most of the 1980s.

Nevertheless, a comparison of the 1975 and 1985 national census data for the north suggests that a combination of river blindness control and the worsening economic situation in the south may have reduced the net pace of out-migration (Buatsi 1992; Akwabi-Ameyaw 1990; Huntings Technical Services, Ltd. 1988). As a result, many basins are showing, for the first time, a rate of population growth that is equivalent or surpasses the national average. In the pilot project Overseas zone, the area undergoing the most rapid population increase is near the town of Fumbisi (Buatsi 1992; Akwabi-Ameyaw 1990). NOS officials expect that the forthcoming 1995 census and their own upcoming survey of settlement trends will show even higher rates of population growth due to in-migration associated with the bridge and new road system. In the north-eastern area, which historically has had the highest density of infected populations, the areas undergoing the most rapid settlement between 1974 and 1985 were Builsa, Sisala, and Bawku Districts.

## **B. Mission Strategy/objectives**

The overall goal of USAID/Ghana's country strategy is to achieve broad-based, sustainable, market-oriented economic growth. The principal subgoals of this strategy are:

1. to increase real, per capita gross domestic product; and
2. to improve the quality of the human resource base.

Given Ghana's economic performance since 1983, its economic goals, and findings from numerous studies, USAID believes that the best

approach is to develop Ghana's private sector (USAID 1991). To assist Ghana in achieving sustainable economic growth, the country development strategy focuses on:

1. promoting non-traditional exports and improving the efficiency of the agricultural marketing system to promote private sector growth;
2. enhancing the quality of the primary education system; and
3. improving the health status of Ghanaians.

In addition, the mission uses its PL480 funds to support a more flexible portfolio of government and NGO programs in the areas of WID, technology transfer, and natural resource management. The dominant focus of the strategy, however, continues to be, "developing and expanding non-traditional exports." The argument behind this strongly focused program thrust is twofold: first, that Ghana's weak national economy is the major impediment to development in all other sectors, and secondly, that traditional exports (notably cocoa, timber, and gold) will not provide the kind of growth that Ghana needs to appreciably improve the Ghanaian standard of living.

## **C. Key Discussion Point**

### **1. Analysis**

- ◆ Important points emerging from discussions with USAID mission officials was the critical need for the National Onchocerciasis Secretariat to expand its mandate beyond the small "L" shaped pilot project zone in Overseas that was its earlier focus (Map 3.C). The chief reasons for this are that: (1) in the present economic climate, no donor is likely to fund the sort of single-donor, integrated development project that NOS was originally proposing; and (2) the issue of river blindness control is related to the broader development issues of the river basins throughout the entire impoverished north.

Although the NOS continues to focus heavily on Overseas, the agency's efforts were instrumental in the GOG decision to improve the planning data base for all of the northern river basins. Especially important are a series of studies designated in the current GOG budget to: 1) assess by district, current government, NGO, and donor activities in the OCP valleys; 2) to identify district and, villages within individual districts, that are undergoing river basin resettlement; and 3) to describe the characteristics (rate, ethnic composition, production patterns) of these settlement trends (Baesyd Computer Systems, Ltd./NOS 1992). These studies will provide donors with a better base for policy interventions in the north.

- ◆ USAID has never been, nor is it likely to ever become, a major donor in Ghana's north. Instead, the USAID strategy remains strongly focused on the issue of developing and expanding Ghana's non-traditional exports which have traditionally been concentrated in the south. Nevertheless, the mission staff and strategy express a clear recognition that the chronic underdevelopment of the north will ultimately constitute a country-wide drag on development. The mission's decision to target the focus of its Ghana Primary Education Program on the north is an attempt to address at least one of these regional inequities.

## 2. Summary

In light of these concerns and the existing mission strategy, staff emphasized that USAID's most immediate contributions to follow-up planning in the north were likely to be:

- ◆ opening doors to other donors as they did with GTZ and the Canadians during this activity; and
- ◆ continuing to support the Ghana Primary Education Program and to target some of the resources of this project to the isolated, high potential river basin zones.

The follow-up discussions which USAID organized with the Germans and the Canadians, who are both active in agricultural and infrastructure development in the north, were extremely useful. Surprisingly, this was the first time that the senior mission staff in either mission had been

briefed on the OCP or the existing literature on socio-economic trends set in motion by onchocerciasis control. These meetings also provided an opportunity to exchange information about USAID's educational activities in the north. This type of inter-donor collaboration is an absolute necessity for a revitalized National Onchocerciasis Secretariat.

Other concerns that emerged from mission discussions which could be addressed within the framework of USAID/Ghana's existing country strategy include:

- exploring the possibility of developing non-traditional exports from the north (rice, home-spun cloth, shea nuts) as part of the existing TIP (Trade and Investment Program);
- increasing communication with IFPRI (International Food Policy Research Institute) about its research on international trade across Ghana's northern border as a means of identifying possible non-traditional exports from the zone; and
- exploring ways that some of USAID/Ghana's PL480 funds which are not entirely obligated might reinforce women in development and environmental activities in OCP river basins where the USAID Primary Education Project is active. This "paired project" concept provides a unique opportunity to explore ways to increase the salary, status, and motivation of rural school teachers. Teacher recruitment and retention is a major problem in isolated northern zones like "Overseas."

## 4. Guinea

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### A. OCP Status Review

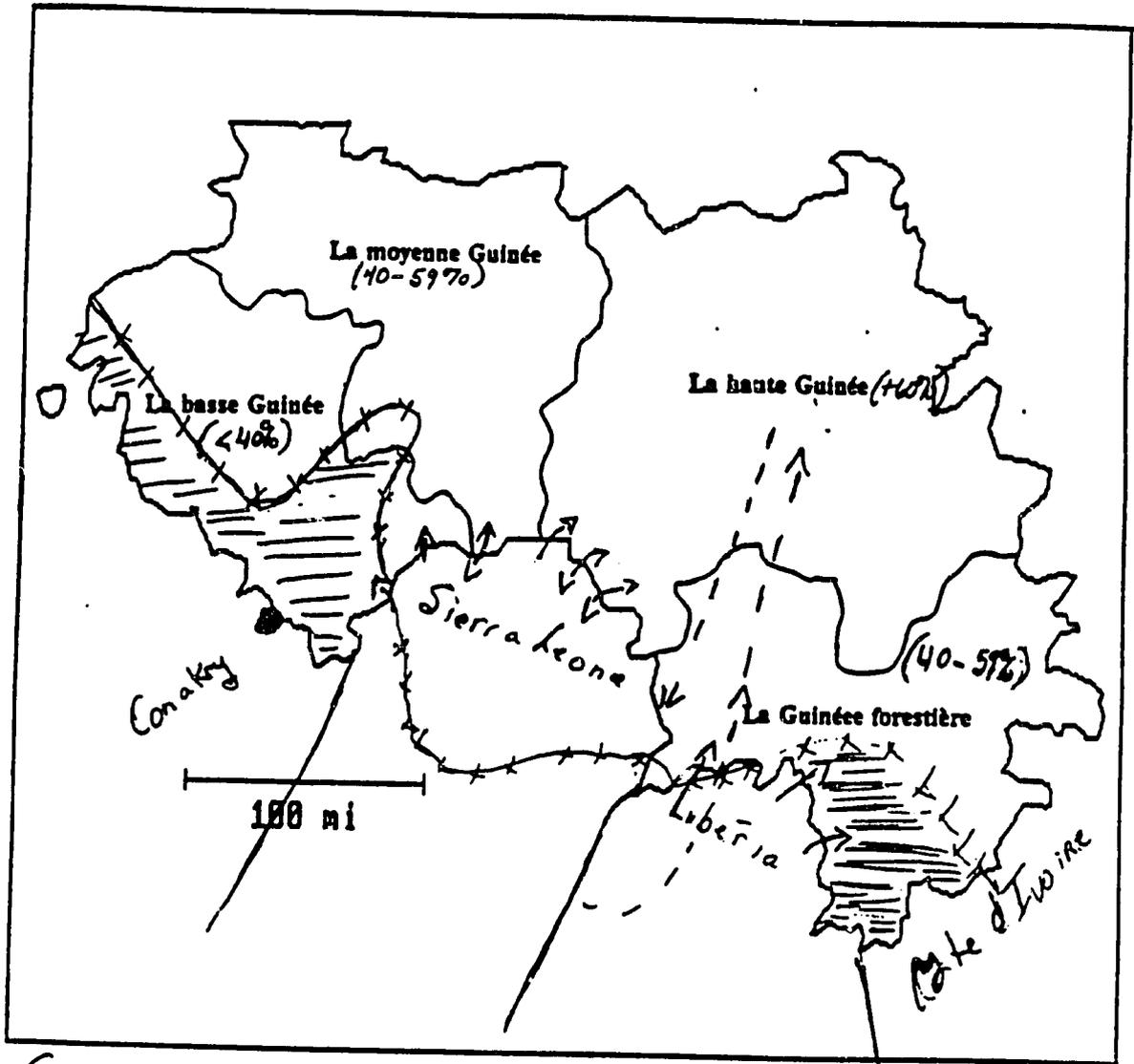
#### 1. The Control Program

About 90 percent of the total land area of Guinea is covered by river blindness control. The highest levels of infection occurred in the Haute Guinée (Upper Guinea) region (+60%), followed by the Middle and Forest Guinea Regions (40-59%). Much lower rates were recorded in the river basins of Lower Guinea (<40%) (Map 4.A). In 1982 approximately 2 million Guineans were exposed to onchocerciasis; approximately 20,000 were blind (Kassé, personal conversation 1992). One reflection of the national importance accorded to the problem is the fact that the government created an Onchocerciasis Section within the Ministry of Health in the early 1960s. This small, but active, unit operated without outside donor investment until 1984 when its activities were expanded and "topped off" by support from the Onchocerciasis Control Programme (OCP). Today, the total cost of OCP support for onchocerciasis control in Guinea is estimated at about one million US dollars per year; the Guinea government's annual contribution is estimated to be about 200,000,000 Guinean francs (Kassé, personal conversation, 1992). The OCP costs should diminish substantially over the next five years to the point where the program can operate with only minor outside support.

#### 2. Socio-economic Impact

The OCP Land Settlement Review predicted in 1989 that Guinea would experience a dramatic increase in "new" lands settlement in certain areas over the next decade (Buursink and Painter 1990). This projected increase in the rate of new lands settlement was attributed to disease control combining with:

- increased investment in the development of irrigated rice cultivation;



Source: J. Kasse, Chef, Equipe Onco, Ministère de Santé, Ruines<sup>48</sup>

- X - limites zone OCP
- ≡ hors programme OCP (Ruines')
- New Migration Trends.

- large-scale return migration of Guineans from Liberia and Sierra Leone (Map 4.A); and
- the growing number of refugees from Liberia and Sierra Leone (Map 4.A).

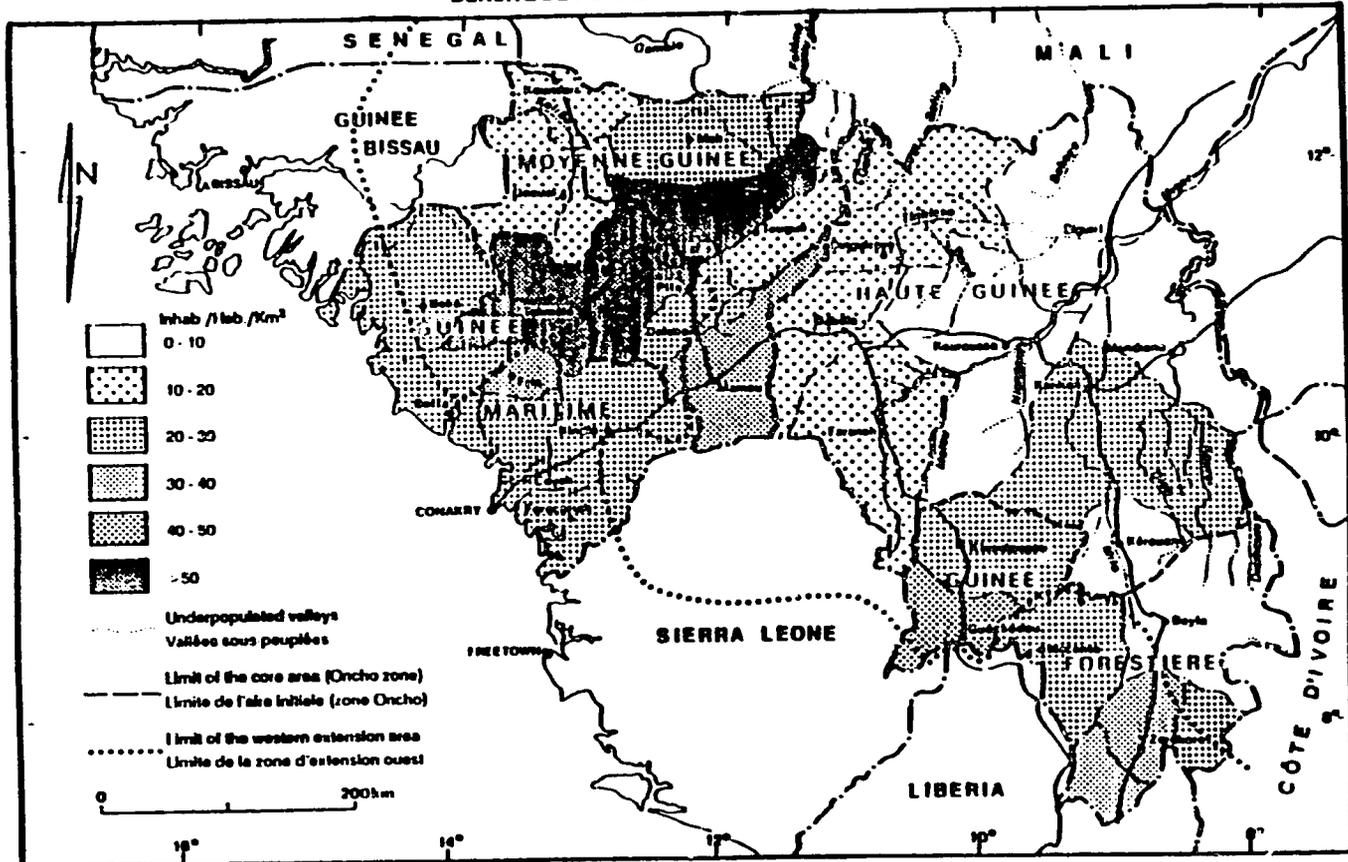
Both the Onchocerciasis Section of the Health Ministry and the Huntings Technical Services' report, *Socio-economic Development Studies in the Onchocerciasis Control Programme Area (1988)*, focus on the OCP's projected impact on the sparsely populated Upper Guinea region (Map 4.B). More specifically they argued that any long-term attempt to achieve Upper Guinea's full agricultural potential must be linked to the development of the alluvial river basins of the Niger valley and its tributaries (Huntings 1988: F206). In 1988 the area of "new" river basin land which could be cultivated in Upper Guinea's Milo, Dion, Sankarani, Fie, Mili, Niger, Niandan, Banie, Nieme, and Niger river basins was estimated at 126,320 hectares. Neither Huntings (1988) nor Buursink and Painter (1990) give an estimate of the potential cultivable area in other regions or river basins.

## **B. Mission Strategy/Objectives**

USAID lists three strategic objectives for its current country strategy in Guinea:

1. increased sustainable private sector agricultural and light manufacturing output for domestic and export markets;
2. improved human resources for sustainable economic growth;  
and
3. increased local level participation in economic and social development planning and management.

POPULATION DENSITY BY PREFECTURE  
 DENSITE DE POPULATION PAR PREFECTURE



Source: 1983 Census/Décensement

## **C. Key Discussion Points**

### **1. Analysis**

- ◆ **Based on discussions with USAID/Guinea and national OCP staff, the most critical need for OCP follow-up planning is to convert the vertical OCP into the national horizontal health system. This conversion necessitates some targeted donor support to assist the government with training mid-level and upper-level health workers in the new disease surveillance and treatment techniques that will be necessary as the OCP pulls back from direct project support in 1997. Some of the suggested techniques for galvanizing better mid-level ministry support include: (a) the organization of 2-3 seminars by region to outline the major themes of disease surveillance and treatment; and (b) financial assistance (such as is already being furnished by UNICEF) to ensure that local health agents have the necessary means (principally mopeds and fuel) needed to carry out long-term river blindness control monitoring and control.**

The success of both mid and upper level training for the devolution of OCP activities in Guinea depends on the Guinea OCP's capacity to communicate with different regional, national, and international partners. This capacity would be enhanced by the development of slide, video, and oral demonstrations of particular surveillance and treatment techniques as well as special planning problems associated with onchocerciasis control.

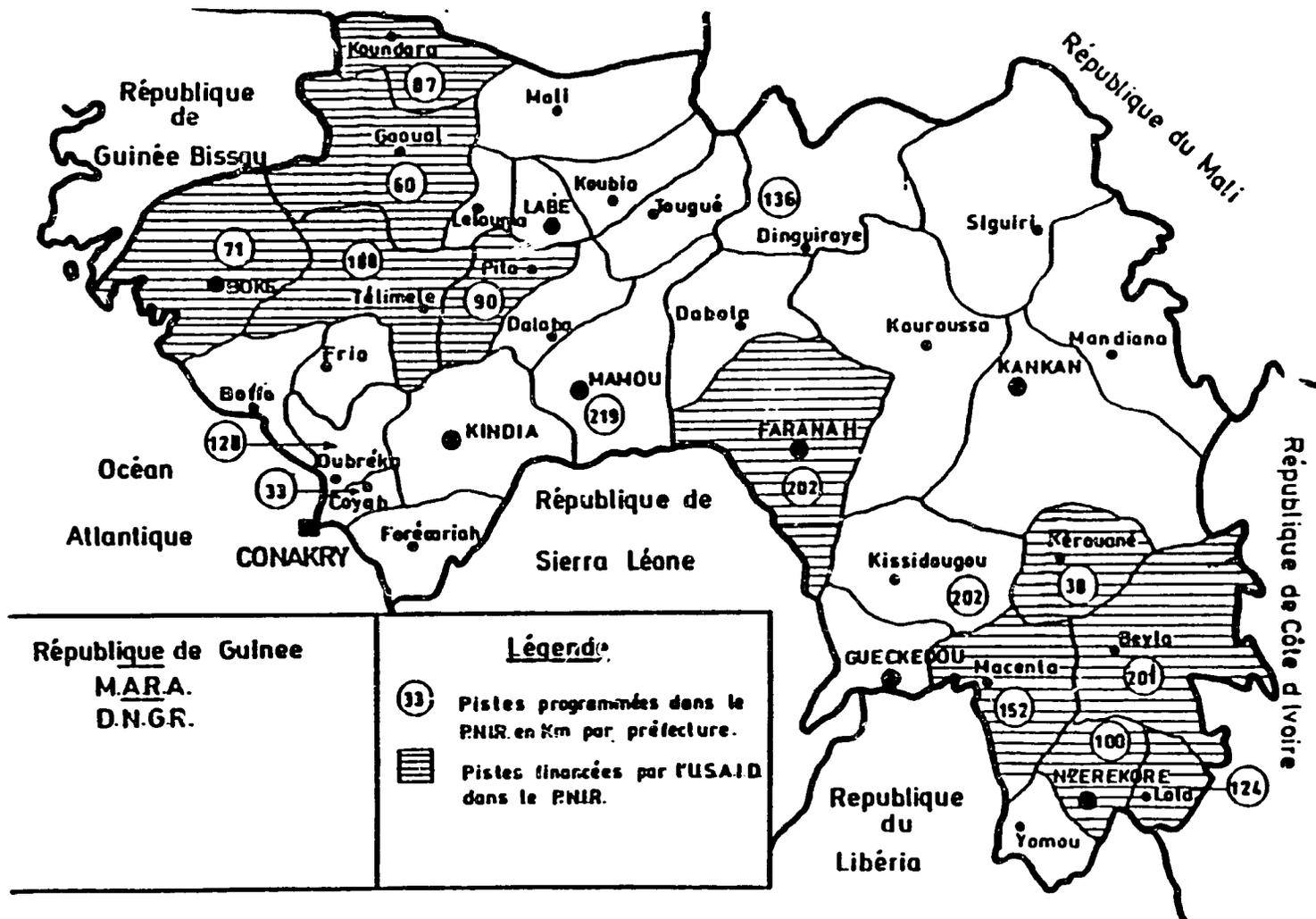
These are not areas in which USAID/Guinea intervenes. Nevertheless, USAID participates in the World Bank-coordinated inter-donor council which shapes donor policy for the health sector. USAID/Guinea might thus simply serve as a "window" through which the OCP coordinator could communicate with this council as well as with other donor councils that coordinate interventions in infrastructure and education.

## 2. Summary

In light of mission concerns, the most immediate areas of potential overlap between USAID's existing portfolio and socio-economic development in Guinea's OCP river basins are:

- the mission's three rural roads and infrastructure projects; and
  - the Natural Resource Management project.
- ◆ The OCP Land Settlement Review provides clear evidence that rural infrastructure is one of the most important factors that determines the direction and rate of immigration to an under-populated river basin. The mission has three rural roads and infrastructure projects totaling \$65.5 million dollars. The Rural Roads Project is part of a large multi-donor project, the *Projet National d'Infrastructure et Routes* (PNIR), coordinated by the World Bank (Map 4.C). Several of the roads scheduled for rehabilitation under the PNIR (but not necessarily that portion funded by the USAID/Rural Roads Project) are in prefectures where new lands settlement in response to control is expected to occur. Here again, USAID/Guinea might serve as a "window" through which information on past and projected immigration trends might be conveyed to other donors and the government.

Another distinctive feature of all three roads projects is that they emphasize the need for social, environmental, and economic assessments. The chief problem is that this information is non-cumulative. The first and third project, for example, are in one ministry; the second in another. One goal of USAID/Guinea is to create one place in the country which specializes in transportation needs and impact assessment. This research facility could be situated within an existing office within an existing ministry. If successful, the research would provide a valuable planning tool for Guinea as well as other countries in the eleven country zone. In December 1992, the USAID/ADP program was in the process of drafting a proposal for a joint donor meeting with the World Bank and the French to discuss this idea.



- ◆ The Mission's chief natural resource project is part of a larger national inter-donor effort, the Fouta Djallon Highlands Project (FDHIRD), to promote sustainable development in the Fouta Djallon (Polidoro 1992; USAID/Guinea 1991). The first phase identified and delimited twelve paired watershed basins located in the Fouta Djallon (ten) and Upper Guinea (two).

The USAID project focuses on three of the most isolated of the twelve watersheds covered by the FDHIRD program. Although onchocerciasis was never a major problem at these three sites, the three sites covered by the CEE were once highly endemic for the disease.

The most direct potential overlap between this USAID/Guinea project and OCP follow-up planning would be to increase the dissemination of information about the control program to the wider FDHIRD program. The USAID/NRMS project manager suggested that one of the best means for carrying out this function would be to invite all donors and management staff of the FDHIRD project to a GOG/OAU/USAID workshop on "Health and the Environment." This proposed workshop could occur in the spring or summer of 1993. The suggested focus of the workshop would be:

how improved environmental practices result in improved health and how the existing health care system, i.e., the rural health centers, can incorporate preventive measures in their community outreach activities (Polidoro 1992).

Such a workshop would provide an ideal forum for discussing the OCP and its projected impact on immigration and development.

- ◆ Other key discussion points follow.
  - USAID/Guinea's Rural Enterprise Development Project supports a number of private sector, rural enterprise development activities in Upper Guinea through a regional office at Kankan. This is a regional resource which could be used to promote the development of off-farm employment in areas undergoing rapid new lands settlement.

- The mission's Social Marketing of Contraceptives Project is already active in the forest zone and plans to expand into Upper Guinea in 1993. The project hopes to eventually include 32 health centers in each of these two regions. One of the indirect benefits of the way the project is designed is to strengthen the ongoing efforts in primary health care and central medical distribution of the Ministry of Health. This conversion from a vertical (family planning) to a horizontal (regional health services) program that is supported by this project is similar to the process being outlined for OCP devolution. Although USAID/-Guinea has no plans to support OCP devolution, the OCP might find it useful to build on the mission's contacts with regional health services in Upper Guinea and their experience with social marketing.
- As the OCP maps out its strategy for devolution, it might benefit from USAID/Guinea's proposed project to support the existing network of rural radios; this project is still in the feasibility phase.
- Another project with strong potential overlap which is still in the feasibility phase is the PVO/NGO Needs Assessment Project. The goal of this project is to see if USAID should be involved in developing a private umbrella operation to support PVO and NGO activities in Guinea. Since many long-term activities in the OCP river basins will no doubt be coordinated through NGOs, the OCP national coordinator for Guinea should try to stay in contact with the director of this proposed project as well as with the Canadian and UNDP projects to develop NGOs in Guinea.
- Although the Guinea Economic Policy Reform Project focuses on private sector policy reform and overall restructuring of the economy, this project offers one of the most direct mechanisms for communication with the Ministry of Agriculture and Animal Resources (MARA), *Cellule de Coordination* — a group which is helping MARA redefine its strategies and programs. The USAID coordinator for this project suggested that the OCP national coordinator or someone within his unit make a

presentation on the OCP and the new socioeconomic issues being created by it at one of the forthcoming regional MARA training seminars.

- Another recommendation was for the OCP National Coordinator to work with the OCP and any other interested donor (e.g. the World Bank) to develop an OCP module for teacher in-service training. These sessions provide one of the best avenues for targeting the rural school teachers who are some of the most respected and educated rural leaders. The process of designing and staging these sessions provides a mechanism for broaching the topic of new lands settlement and its potential implications for the development of school infrastructure to the Ministry.
- The type of flexible "human resource development" support offered by USAID/Guinea's Human Resource Development Project could be used for short-term training staff in the Onchocerciasis Section of the Ministry of Health. This funding could also support mid and upper level staff's attendance at conferences.

## 5. Niger

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### A. OCP Status Review

#### 1. The control program

Although only one percent of the total area of Niger is included in the OCP, this land represents about 20 percent of the area with an average annual rainfall of over 350 mm (Huntings 1988). For this reason, the Government of Niger (GON) had a strong interest in developing the zone during the late 1970s and early 1980s.

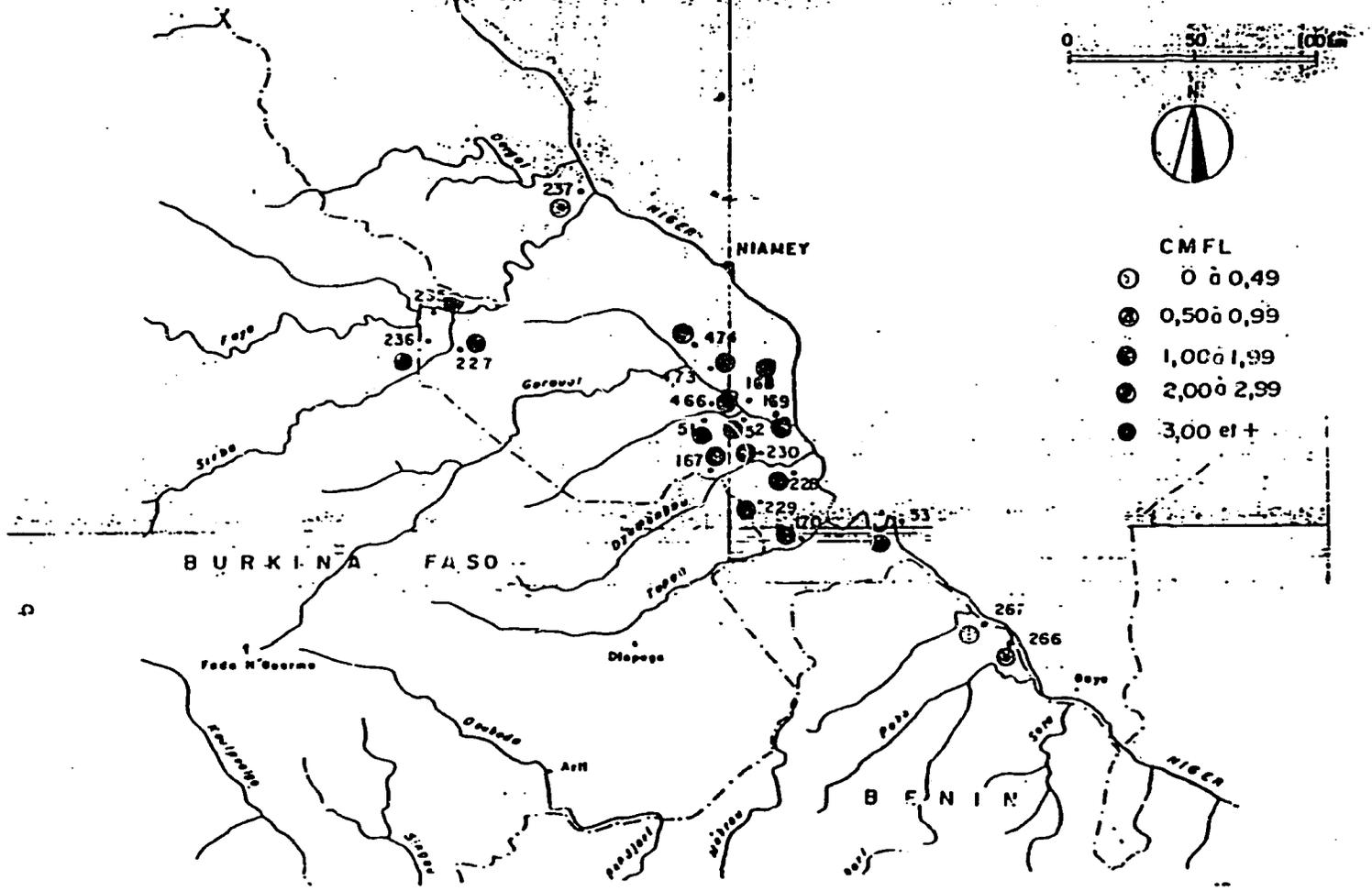
In 1974, the river blindness control program covered approximately 17,000 km<sup>2</sup> in Niger. In 1975, the OCP estimated that the area had a total population of 150,000 persons of whom approximately 15,000 suffered from the disease (Ba 1990). The principal river basins affected were the Tapao, the Diamongou, the Goroubi, the Sirba, and the Mekrou.

An examination of nineteen representative villages covered by onchocerciasis control in 1977 revealed a high incidence of onchocerciasis along the Tapao, the Diamongou, and the Goroubi rivers (Ba 1990) (Map 5.A). The average incidence was 60 percent with a peak of 71 percent incidence along the Tapao. The program has continued to monitor six sample villages along the Niger (Ba 1990). These studies show that the average disease incidence in the most severely infected zones was down to less than 10 percent with one exception in 1992 (Map 5.B). Thus, the risk of disease transmission is believed to be eliminated.

#### 2. Socio-economic Impact

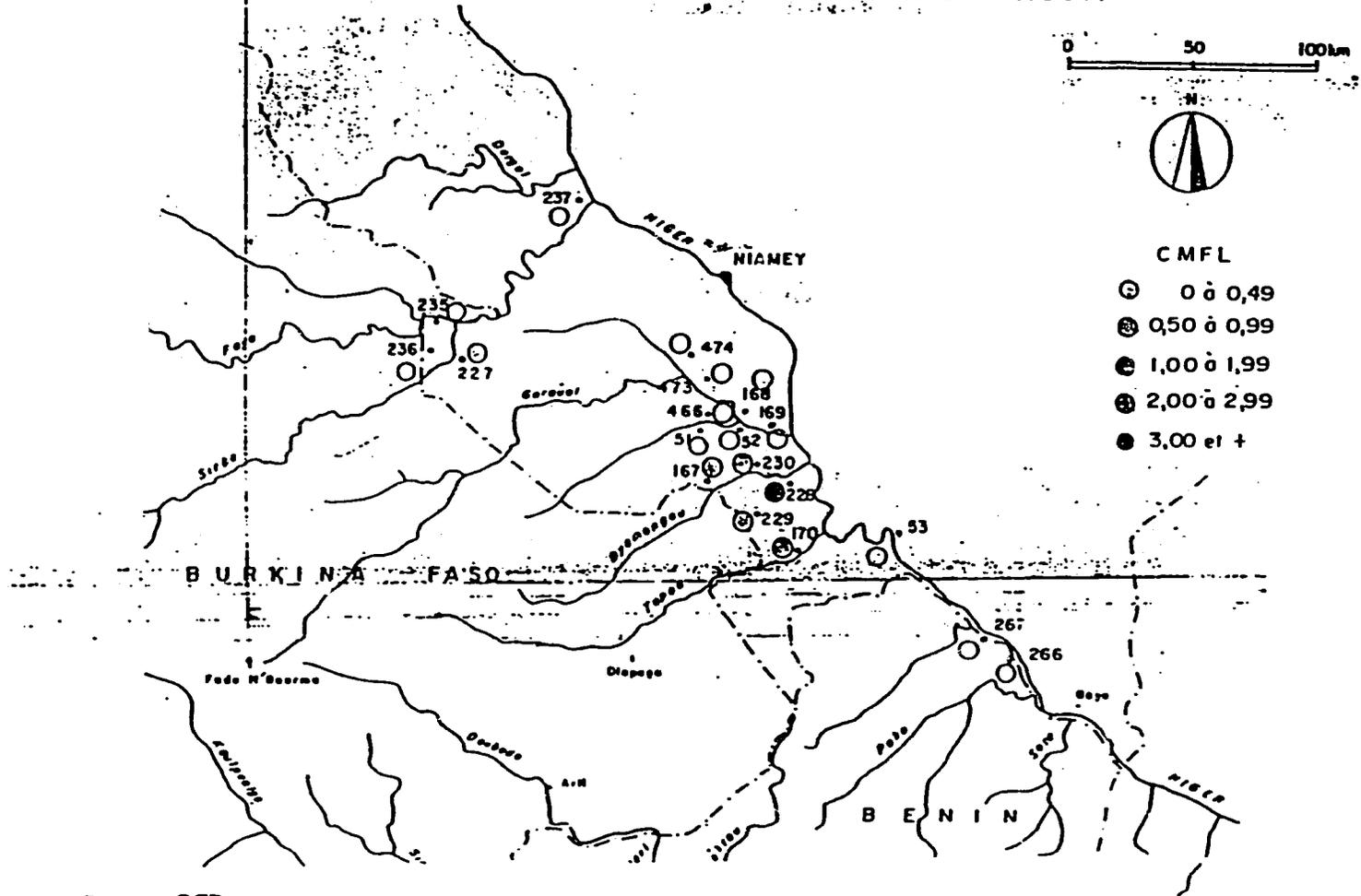
The population of the OCP area was estimated at about 250,000 persons in 1989 (Buursink and Painter 1990:22). The entire Say arrondissement (164,000 persons) and the southern, most populated quarter of the Tera arrondissement are in the OCP area (approximately 80,000-90,000 persons). Population density (1988) in Say arrondissement was estimated at 12.7 percent and in Tera arrondissements as a whole,

PROGRAMME DE LUTTE CONTRE L'ONCHOCERCOSE  
SITUATION EPIDEMIOLOGIQUE AU NIGER (PRE-CONTROL)



Source: OCP.

PROGRAMME DE LUTTE CONTRE L'ONCHOCERCOSE  
SITUATION EPIDEMIOLOGIQUE AU NIGER (1989)



Source: OCP.

18.2 inhabitants per km<sup>2</sup> (ibid.). These low population densities, despite adjacent population pressure, were attributed to the historically high incidence of diseases such as onchocerciasis and the general scarcity of potable water supplies. A large part of the OCP area is officially protected land. Over 334,000 ha (almost 30 percent) of the Parc W, which stretches over three OCP countries (Benin, Burkina Faso, and Niger) are in Niger. Adjacent to this park is the *Tamou Reserve Totale*, which covers an additional 143,000 ha to the northwest. Another partially reserved area extends beyond these fully protected areas. There are also a number of smaller classified forest areas in the OCP region.

The 1969-1974 drought increased spontaneous immigration from the north to the OCP river basins. Most of the immigrants that came to the Say arrondissement originated in Ouallam and Filingue, two arrondissements northeast of Niamey. Between 1979 and 1983, the same control zone experienced substantial investment in new bore holes and roads, including paving the Niamey-Burkina Faso road. This immigration plus the 1983 drought attracted increased spontaneous immigration from the north. Both Huntings (1988) and Buursink and Painter (1990) argue that the trend toward increased immigration into the OCP river basins has continued. An additional concern is the recent (mid-1980s) acquisition by absentee landlords from Niamey of large holdings (200-900 ha) of land between the Goroubi and Dyamongou rivers. There are several reports of increasing land tenure conflicts in the most suitable cultivation zones. These conflicts have been exacerbated by differences in land use between the FulBe, who are either pastoralists or practice extensive farming, and the indigenous Gourmantche who practice more extensive rainfed agriculture. Huntings (1988) reports the growing government concern that high rates of unassisted spontaneous settlement may increase soil erosion and forest degradation in the zone.

In 1979 the Government of Niger prepared its first proposal for a development project in the arrondissement of Say with UNDP assistance. The proposal included a scheme to settle surplus population from the north (Ouallam and Filingue) in the sparsely settled river basins affected by onchocerciasis control. However, neither the government of Niger nor any external agencies were willing to fund the proposed resettlement scheme and the project was eventually abandoned. In May 1987, the government, with implicit encouragement from the donor community, prepared a new project, *Projet de mise en valeur des zones libérées de l'onchocercose*, with a proposed budget of \$34 million (Huntings 1988).

The design of this centrally funded project was heavily influenced by what the Niger government officials observed during OCP-sponsored visits to Burkina Faso's AVV (Mock 1988). Follow-up discussions suggest that no single donor was willing to fund this type of expensive, integrated development project (Mock 1988).

## **B. Mission Strategy/Objectives**

The goal of USAID assistance over the next three years in Niger is: to promote sustainable market-based economic growth while emphasizing locally managed resources and reduced population growth (USAID/Niger 1992b). Accordingly, the USAID's strategic planning is directed to:

1. effective management of the natural resource base;
2. reducing population growth; and
3. improved protection from natural disasters.

## **C. Key Discussion Points**

### **1. Analysis**

- ◆ Niger's most immediate need for follow-up planning in the OCP river basins is reinforcement of the country's capacity to support long-term disease surveillance and control. This is an activity which USAID/Niger supports through a \$400,000 institutional development grant to the Helen Keller International (HKI) Foundation. The goals of the project are: (1) to support OCP devolution; and (2) to launch a pilot project to test the utility of using NGOs as a mechanism for reinforcing institutional capacity. Although the USAID/HKI program focuses on onchocerciasis control, the government would like to integrate the disease surveillance and educational programs with other disease control efforts.
- ◆ Both donors and the national government need improved information on the OCP and the OCP's socio-economic impact. Staff associated with the USAID/HKI project and USAID/Niger

emphasized that this information could help mobilize support for devolution as well as for complementary investments in basic infrastructure and services. USAID/HKI administrators noted that this information could be distributed as part of the project's health education function.

To illustrate the problem, the USAID/ADP staff emphasized that, to date, USAID/Niger has not considered the relevance of river blindness control to any of their projects. However, based on the presentation and discussions, they cited two areas where there appear to be strong overlap: 1) the impact of onchocerciasis control on internal immigration trends; and 2) the special land tenure issues being created by increased immigration into the zone.

Staff emphasized that it is unlikely that USAID, or any other donor, would have the means to fund the type of regional land use planning that the GON, Huntings (1988), and Buursink and Painter (1990) argue is so badly needed. A more likely approach is for donors to assist the government with its current goal to develop a land use plan for each department on a one-on-one basis.

## 2. Summary

- ◆ One concrete recommendation for addressing some of these issues is to organize a small inter-donor conference to assess what types of planning are already underway and to identify areas not currently covered. A potential title is, "Food Security Issues Posed by River Blindness Control." The USAID/Niger GDO Director suggested that funding for such a conference could be through the DPM (Disaster Preparedness and Monitoring) Project and hosted at the Park W which is inside the control zone.
- ◆ Another recommendation was to approach the regional USAID/AGRHYMET (Agrometeorologie/ Hydrologie/ Meteorologie) Project about their willingness to work with HKI and the OCP national staff in developing a packet of information on recent settlement and environmental trends. It was suggested that this activity might be funded through the existing AGRHYMET budget.

- ◆ **Finally, since most of the USAID/ADP projects are "demand" driven--i.e. individual groups from the Onchocerciasis zone propose projects in the area where USAID is able to award funds--a logical follow-up would be to organize a small internal two to three day visit to the area to identify potential projects.**

## 6. Senegal

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### A. OCP Status Review

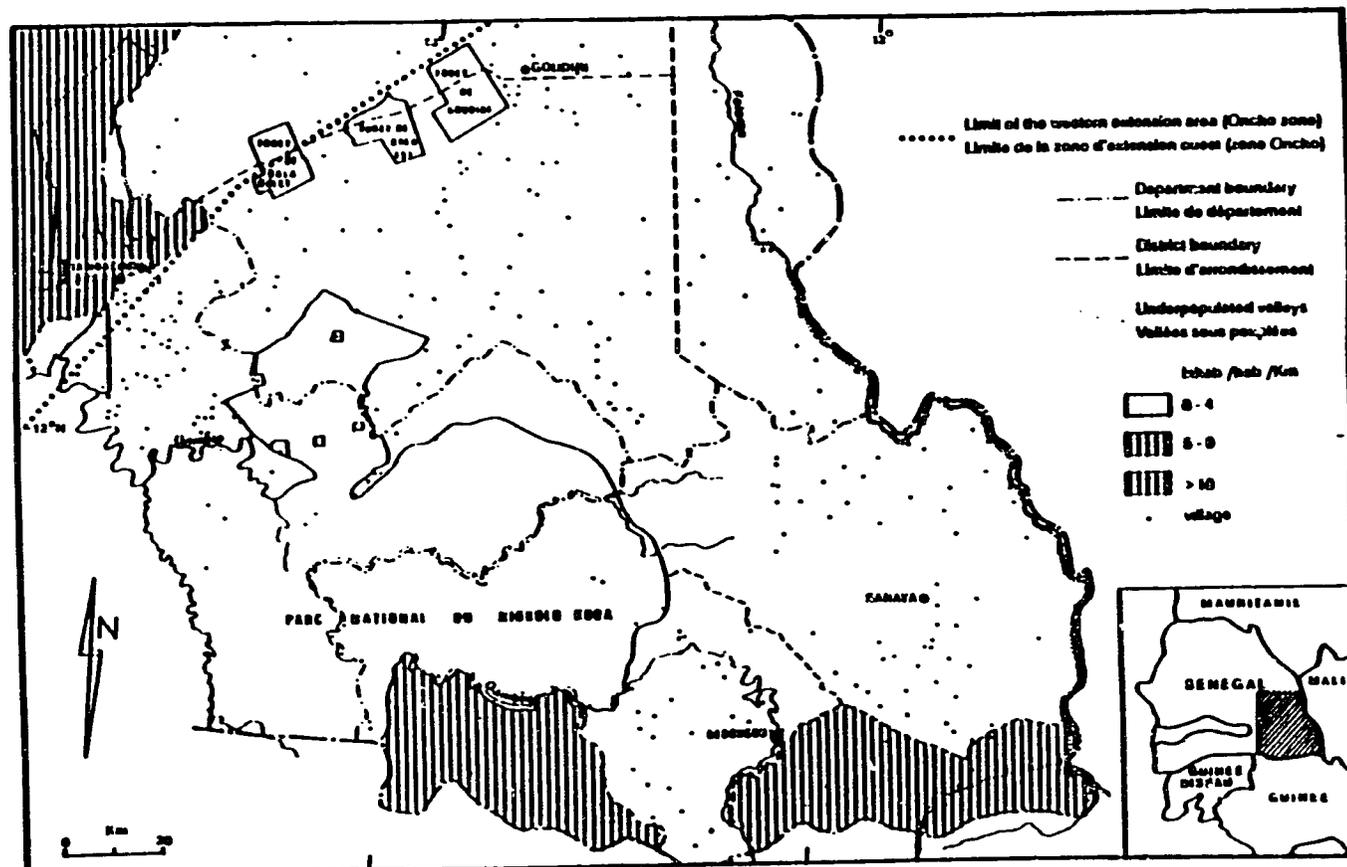
#### 1. The control program

About one-third of Senegal's land area is included in the Onchocerciasis Control Programme. Like Guinea, Guinea Bissau, and Sierra Leone, Senegal is part of the 1986 (third phase) western extension zone. It is interesting to note that the President of Senegal played a major role in lobbying donors to support the western extension program. The control zone embraces the "Senegal Orientale" region near Tambacounda, one of the most sparsely populated areas of Senegal (average 4.5 km<sup>2</sup>) (Map 6.A). The Tambacounda region covers some 59,000 km<sup>2</sup>. This represents about one-third of the total national territory (350,000 persons), but only six percent of the total population.

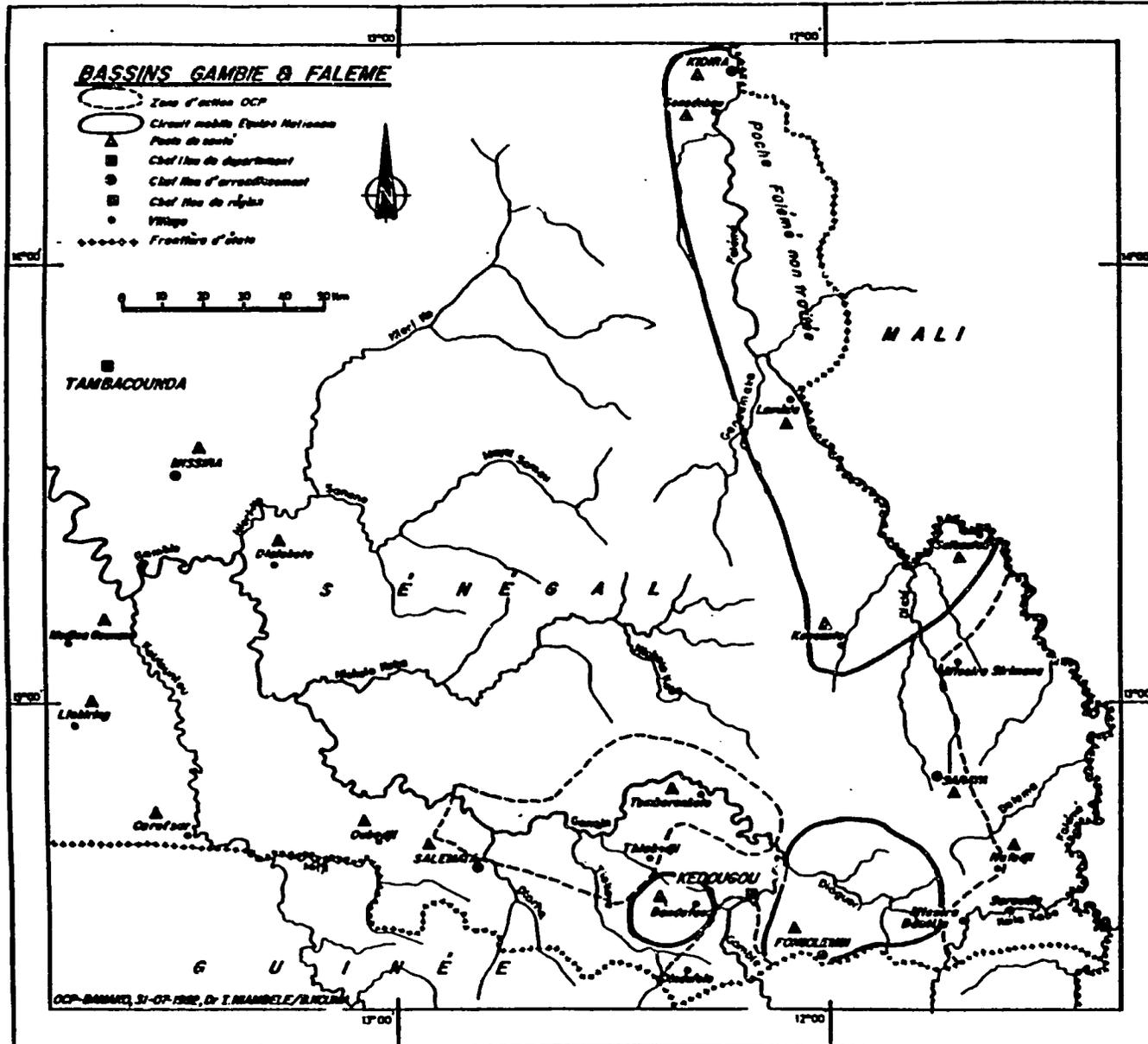
In 1981 the OCP estimated that about 44,000 persons were infected in the Senegal Orientale/Tambacounda region out of a total exposed population of about 200,000. Of this number, an estimated 1,500 were considered blind (personal communication, Dr. Ndour, the national OCP coordinator). Although relatively low in absolute terms, the percent is high given the low population densities in the Tambacounda region and the high concentration of this population in the Falémé and Gambia river basins (Map 6.A). The highest rate of infected persons was observed in the Kédougou department. Other departments which were once highly endemic for onchocerciasis include Kidira (in the Bakel region) and Missira (near Tambacounda), and the arrondissement of Bonconto (Kolda region) (Map 6.B).

The actual control program started in 1988 through a joint effort of the Ministry of Health of Senegal and the Onchocerciasis Control Programme. The early program included both insecticide and mectizan (ivermectin) control methods. In 1990, the program abandoned insecticide spraying in favor of a concerted effort to distribute ivermectin. The chief reason for the change was the exorbitant cost of

Map 1. Population and Population Density in the OCP Control Zone of Senegal



Source: ORSTOM map 1978 c 148



transporting fuel and insecticides to the Kédougou station. A second reason was the negligible role of Senegal as a previous or potential source for disease reinvasion of the core control zone.

Ivermectin distribution in Senegal has increased from 3,000 people treated in 1988 to a total of 19,972 people treated in 1992. In 1993, 142 villages were treated regularly (one treatment per year along the Falémé and two per year along the Gambia river) (Map 6.B).

In 1992, 50 percent of the direct costs (not including the cost of vehicles, buildings or equipment) of ivermectin distribution was covered by the Senegalese government and about 50 percent by the WHO funded OCP (about \$60,000 from OCP and \$69,000 from the government, largely in the form of salaries). Epidemiological studies to assess the impact of ivermectin control on disease transmission are currently being analyzed.

## **2. Socioeconomic Impact**

Historically, the high incidence of onchocerciasis was one of many factors that discouraged settlement and development in the Tambacounda region. Other factors include the area's isolation and inadequate roads. Other constraints include the lack of easily accessible drinking water and uneven soil quality (see Buursink and Painter 1990; Huntings 1988).

By the same token, river blindness control is only one of several factors that is likely to increase in-migration and development. Other factors include: a) the construction (already underway) of two major paved highways that will link Tambacounda with Kédougou and Tambacounda with Goundijiri (see location of towns on Map 6.A); b) the area's high rainfall (750-1000 mm/year); c) the prospective activities of MIFERSO (Mines de Fer du Senegal Orientale); d) small industry development due to the increased availability of hydroelectric power from the Mananthali dam; e) increased government and SODEFITEX investment in cotton production (which attained an all-time high of 50,000 tons in the region in 1991); f) the potential development of commercial banana production; and g) tourism associated with the area's huge *Parc National du Niokola-Koba*.

Both donors and government officials emphasized the striking lack of basic planning data on the demographic and natural resource characteristics of the control zone. Recent research connected with ivermectin distribution in 50 villages, however, showed an 8 percent increase in total population over a one year period between 1991 and 1992. The highest rates of population increase due to immigration are predicted for the Gambia and Falémé river basins.

## **B. Mission Strategy/Objectives**

USAID/Senegal's current country strategy emphasizes four strategic objectives (USAID/Senegal CPSP):

- 1) decreasing average family size;
- 2) increased crop production in the regions with more reliable rainfall (totalling a minimum of 400 mm per year);
- 3) increased value of tree production; and
- 4) increased market liberalization.

In addition, the mission emphasizes: the need to monitor gender differences across all programs; and three targets of opportunity (AIDS, democracy, and credit). USAID/Senegal's projects concentrate in two fields: health and population and agriculture and natural resource management.

## **C. Key Discussion Points**

### **1. Analysis**

- ◆ The most immediate priority emerging from discussions with the OCP National Coordinator and with Mission staff is the need to expand the control program by augmenting the area covered by ivermectin and by experimenting with new "community self-treatment" methods. These are not activities that USAID is or is likely to be engaged in.

- ◆ **A second priority is to develop a national devolution committee that will oversee the devolution of key OCP responsibilities to the national health ministry. Ideally this committee could include representatives of the different ministries as well as local representatives of the multilateral donors (WHO, World Bank, FAO, UNDP) who serve on the OCP Committee of Sponsoring Agencies. The current plan calls for the committee to develop strong linkages (through representation on an advisory committee) with different NGOs and bilateral donors (USAID, the French, the Dutch, etc.) who intervene in the affected zones. While USAID/Senegal will not have a direct role in the organization of this advisory committee, it would be useful to assign one USAID staff member to the committee as a "window" for improved communication about the OCP and its socioeconomic impacts.**

## **2. Summary: USAID**

The primary area of potential overlap between USAID's existing country strategy and socioeconomic planning in the OCP zone in Senegal are in the fields of agriculture and natural resource management. Specific recommendations for addressing these issues within the context of existing projects follow.

- ◆ **Reforestation Project.**
  - Reinforce the capacity of the existing Reforestation Project to continue its activities especially in the Tambacounda and Kédougou areas.
  - Familiarize the SECID and national staff who administer the reforestation project with information on the new planning opportunities and constraints being created by onchocerciasis control in the core control area and some of the implications of this literature for their efforts in the affected zones.
- ◆ **Community Based Natural Resource Management Project (CBNRM).** Work with USAID staff to enhance opportunities for the team that designs this massive environmental project to consider: (1) the existing base of information on settlement trends and natural resource issues in Senegal's OCP river

basins; and (2) the literature on socio-economic and environmental impacts of control in the eleven country OCP control zone.

- ◆ **Natural Resource Based Agricultural Research Project**
  - Encourage local NGOs and development agencies who are involved in the OCP devolution program to identify some of the special technology needs associated with the resettlement and development of the isolated OCP river basins of the Tambacounda area.
  - Encourage the project Outreach Coordinator (stationed at Thiès) to inform the OCP national staff about their activities.
  - Encourage the project Outreach Coordinator to review the OCP Land Settlement Review Final Report for information on the important technology issues which emerged in areas where control started earlier. Sample technologies might include adapted water pumps (given the river basins' deep water table), simple anti-erosion diking (given the propensity of the area's soils to erosion), and multi-purpose grinding mills (given the importance of milling in reducing women's workload and as a source of recurrent income for community infrastructure).
- ◆ **PVO/NGO Support Project**
  - Encourage the OCP Coordinator at Thiès to establish contact with the Project Chief of Party who is also based at Thiès to discuss ways in which the project might increase its publicity of this grant program in the Tambacounda and Kédougou areas.

### **3. Summary: National OCP Program**

Some of the more specific recommendations for the national OCP program include:

- Request at least one representative from USAID to serve on the OCP Advisory Committee as a means of facilitating communication with and for widening the National OCP program's communication with other donors.

- Encourage the development of diversified cropping systems, rather than systems focused on the cultivation of one commercial crop like cotton. Participants at the two plenary sessions are skeptical about the long-term profitability of cotton in the control zone given Senegal's lack of comparative advantage on the international market, uneven soil quality, and the uncertain future of the 60-70 percent subsidies that are now accorded to different production factors.
- Collaborate closely with the French who are the chief donors supporting health in the area where onchocerciasis was historically the greatest problem.
- Emphasize the fragile ecology of the Tambacounda region which is characterized by large areas of soil that are extremely susceptible to erosion and large areas of protected (classified) forests.
- Foster strong collaboration with the many NGOs in the region, especially the strong *associations des émigrés* (associations of immigrants who have left the region).
- Improve the dissemination of information about USAID's activities and the projected socio-economic impact of these activities with major donors like UNDP which support control as well as with other donors and NGOs who intervene in the control zone.
- Develop a series of small workshops on the OCP's activities in Senegal and the socio-economic issues created by onchocerciasis control.
- Reinforce the decentralization of control activities into the existing system of decentralized health services.
- Provide periodic updates on the OCP and socio-economic planning issues at the regular inter-donor meetings that are organized for the health sector.
- Foster continual, rather than sporadic or punctual, contacts to disseminate information on the OCP to donors, NGOs, and national agencies.

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- **Target most follow-up medical and socio-economic issues through the decentralized health, agricultural and natural resource management structures that exist in the most seriously affected zones.**
- **Help galvanize donor support to assess immigration trends and natural resource planning issues in the affected river basins.**
- **Foster strong collaboration with NGOs and the University of Dakar in carrying out planning research and development activities in the control zone.**

## **7. REDSO/WCA**

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### **A. Background: REDSO/WCA**

The OCP supports control in eleven West African countries. All eleven fall within the REDSO/WCA mandate area. In addition to "back-stopping" USAID's sixteen bilateral missions in West and Central Africa, and limited support responsibility for activities in eight other countries, REDSO/WCA coordinates a number of regional programs. The HHRAA (Health and Human Resources Analysis for Africa) is designed to support the Africa Bureau's future investments in health and human resources development in Africa. By the end of FY 1992 seventeen bilateral health and family planning activities (project and non-project assistance) are expected to be operating in Sub-saharan Africa, focusing on increasing the efficiency and sustainability of service delivery systems (Roeser 1991:21). In addition there will be an estimated nine bilateral activities whose aim will be to increase the quality, efficiency and equity of basic education systems in Africa. Another highly relevant regional program is the PARTS project for environment.

### **B. Key Discussion Points**

The REDSO staff emphasized four areas where there was strong overlap between the literature on socio-economic planning in the OCP river basins and their mandated areas for intervention. These include:

- Strategy, Program and Project Development;
- Information Repository;
- Cross communication among programs; and
- Coordination of relevant regional programs.

The need for better communication about the OCP and its socio-economic and environmental impacts is a theme which cross-cuts all four. While most REDSO health staff were aware of current activities to

support the "devolution" of responsibility for surveillance and control onto national institutions, they had little information about the historical patterns of infection and potential scope for reinfestation in the event devolution was not carried out successfully.

Staff emphasized that REDSO's activities tend to be in response to mission initiatives. There is a need, therefore, to enable REDSO's ability to increase mission awareness of the new issues in human resource, health, agricultural and environmental planning created by river blindness control. Missions (and national governments) must also have a certain base level of information on control and socio-economic planning before they can perceive follow-up planning as an issue as well as an opportunity.

The same staff observed that any long-term plan to improve communication with the missions must be cognizant that:

1. USAID bilateral and REDSO/WCA staff are inundated with written information and administration;
  2. staff have little time to attend the tailored conferences or workshops that are often used to launch new initiatives;
  3. conferences and workshops typically have no effect unless they are linked to a conscious program of follow-up communication; and
  4. staff tend to respond to "outside mobilization" (i.e. "foreign prophets" or direct communication with the missions) more enthusiastically than they do to internal mobilization (i.e. relying on USAID to transmit the message internally).
- ◆ Staff emphasized that the most immediate need is for a follow up visit, similar to this mission, to:
1. meet with REDSO staff who were absent during the initial visit; and

2. provide REDSO staff with a presentation and supporting reference materials tailored to their specific sphere of activity.
  - ◆ Staff emphasized that the communication of broad policy lessons learned from the highly successful OCP provides another avenue for disseminating information on the OCP. Sample lessons learned include the important role of OCP investment in research and development; community involvement (or the lack there of) in the early OCP and its effect on devolution; the efficacy of different institutional arrangements for control in the core, southern, and western extension zones; and even the early involvement of influential international leaders like Robert MacNamara and the President of Senegal. Another key lesson is that the pervasive regionalization of most diseases requires regional, not simply national, programs of eradication and/or control. It is important for policy-makers to explore some of the factors that contributed to the OCP's successful record in intra-regional coordination.
  - ◆ Staff noted that the program for the annual USAID scheduling conference in Abidjan is already inundated. Thus, any information on the OCP and new settlement issues being created by it would be better appreciated if it were presented as part of the 1-2 day "pre-scheduling conference" workshop that is organized on the Thursday and Friday before the main conference. REDSO staff reported great success with a similar sort of pre-scheduling conference in 1992.
  - ◆ A major discussion point was the need for the OCP and the World Bank Onchocerciasis Unit to develop more innovative means of communication. Sample suggestions include:
    - short twenty minute "debriefing" cassette tapes that staff can listen to at their convenience;
    - short "country debriefing papers" (similar to those prepared as part of this mission) that distill information on the state of river blindness control, devolution, and socio-economic planning in each OCP country;

- **debriefing papers (accompanied with slides or slides converted to video to avoid the great expense of developing new videos) on specific topics.**
- **an annual OCP publication cataloguing films and audio-visual materials that are available through the OCP headquarters in Ouagadougou or the national OCP units.**

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