



USAID
FROM THE AMERICAN PEOPLE



TAKING THE LONG VIEW: USAID, USFS, USGS (and other USG actors and partners) Investment in Smallholder and Community Forestry in West and Central Africa

**Jordan Kimball, Scott Bode, Nicodème Tchamou, Boubacar Thiam,
Diane Russell, Gray Tappan and Dan Whyner**

**with inspiration from
Tim Resch and Mike McGahuey**

**Taking Stock of Smallholder and Community Forestry
Montpellier, 24-26 March 2010**



USAID
FROM THE AMERICAN PEOPLE



Outline



- **Origins**
- **Foundations**
- **Evolution**
- **Site specific experience**
- **Challenges and opportunities**
- **Insights**



USAID
FROM THE AMERICAN PEOPLE



USGS **Origins**

- Sacred forests and indigenous forest management
- Impact of colonial and post-colonial policies and practices
- Institutional development
- Initial USG investment in woodlots, charcoal, fuelwood





USAID
FROM THE AMERICAN PEOPLE



Foundations



- Woodlots and stoves
- Integrated rural development
- NTFPs
- Community forestry in Asia
- Common property NRM
- CBNRM in southern Africa
- USFS support to government forestry institutions
- USGS mapping



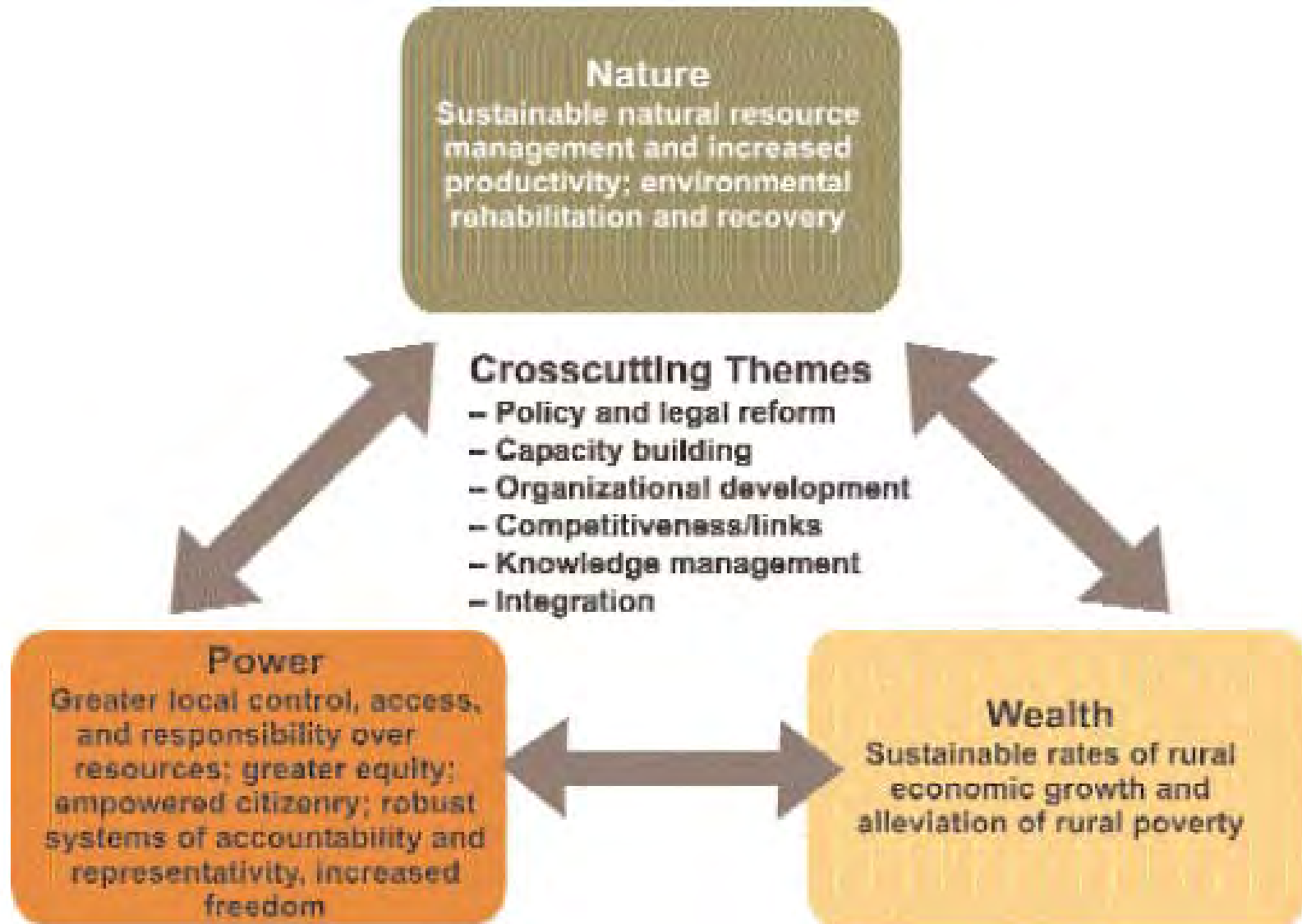
- Niger and Sahel experience
- Cameroon CF experience
- Gender
- Beyond technology
- Rise of governance as concern
- Biodiversity
- Landscapes and mapping
- Conflict and land history
- Illegal logging



USAID
FROM THE AMERICAN PEOPLE



Nature, Wealth and Power



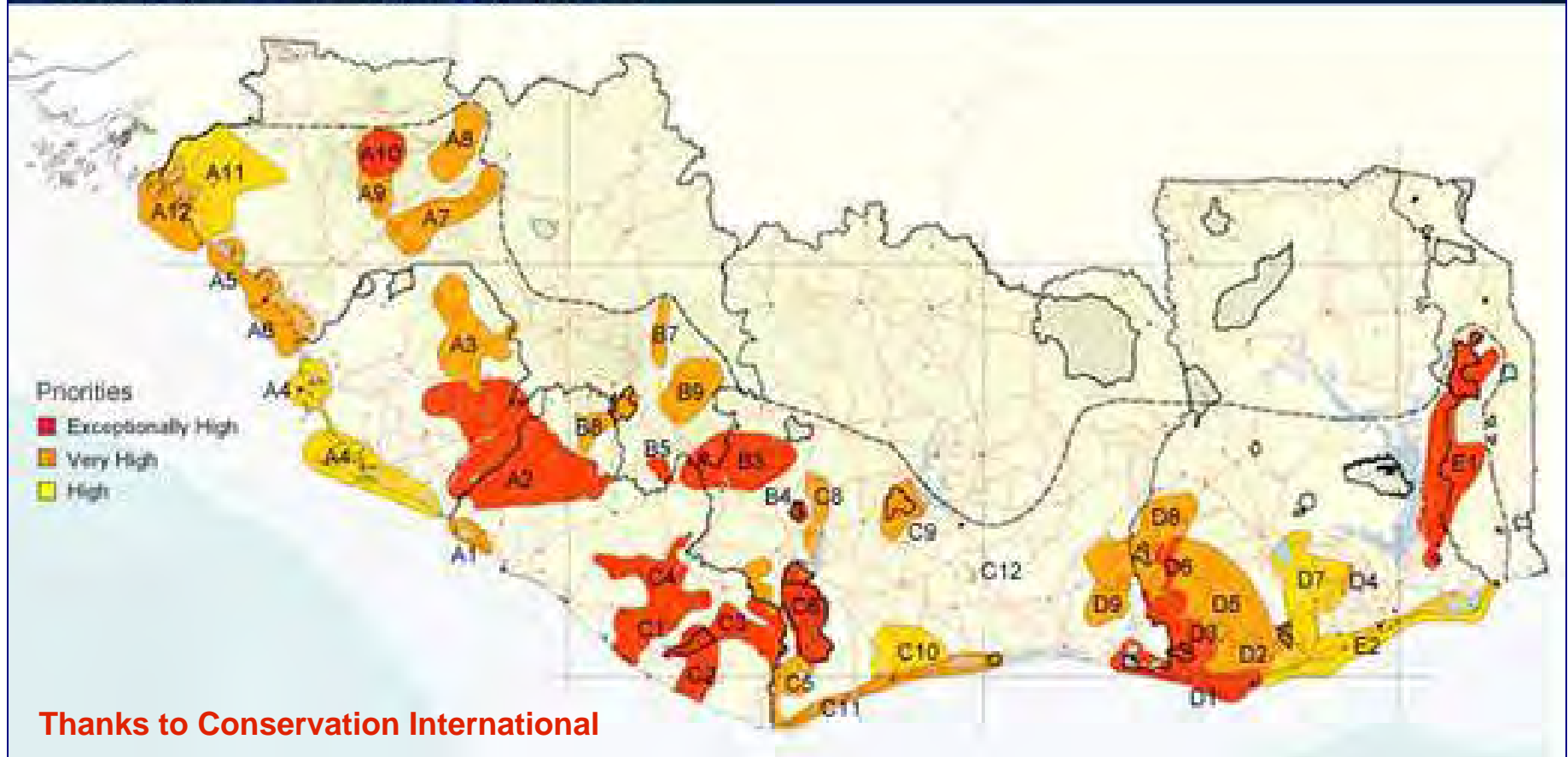


USAID
FROM THE AMERICAN PEOPLE



Biodiversity mapping

Forest and Aquatic Ecosystem Priority Areas





Key sites

- **Guinea**
- **Senegal**
- **Niger**
- **Cameroon**
- **Liberia**
- **Ghana**
- **Sierra Leone**





USAID
FROM THE AMERICAN PEOPLE



Co-management of forest reserves in Guinea

- Program for Fouta Djallon in 12 watersheds
- Partnership between the local people and the national government (National Directorate of Waters and Forests) to manage a national forest
- Management based upon a forest management plan and a contract
- First effort: Nialama Forest reserve (1994-2007)
- GNRMP, ENRMA, LAMIL



USAID
FROM THE AMERICAN PEOPLE



USGS

Key policies encouraging forest co-management

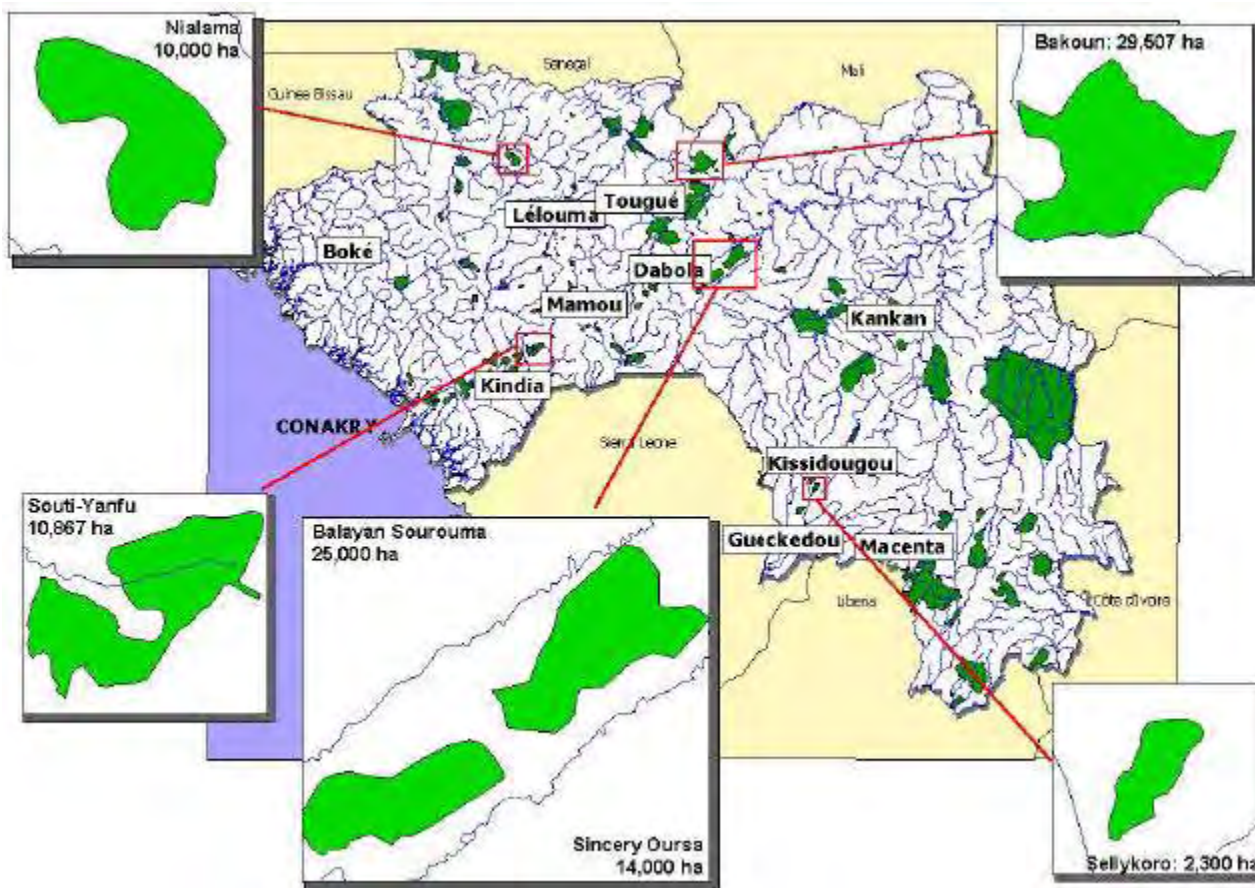
- 1986 Decentralization Policy - CRDs
- 1989 Forest Policy: TFAP & Forest Code
- 1991 Political Letter for Agricultural Development
- 1996 Joint Ministerial Declaration on sharing forest revenues with local govt.
- Other relevant policies (land, environment, international conventions)
- 1999 Forestry Code
- 2005: Law L/2005/014/AN of July 4, 2005 about Cooperative Management



USAID
FROM THE AMERICAN PEOPLE



Forest co-management sites





USAID
FROM THE AMERICAN PEOPLE



USGS

Why Nialama forest was chosen as the pilot

- Nialama Forest occupies >50% Koundou watershed; only classified forest in region
- Heavy pressure on forest, limited farm land
- Need to improve relations between government and local population
- Desire to develop viable model of participatory forest management, to balance protection and production values



Results

- Nature

- Decreased forest fire
- Chimpanzees habitat protected
- Fauna protected from poachers
- *Ronier Palm (Borassus erinaceus mart)* regenerated
- Sustainable agriculture (agroforestry) promoted
- Soil and water conserved

- Power

- New organization representing interested villages, chosen by local people; transparent, with statutes & regulations
- Representation of stakeholders
- Trained in organizational management
- Participation in resource management
- Revenues collected, managed and shared locally
- Hold elections and meetings, set up rules and fines

- Wealth (2006-2007)

- Allocation of agroforestry plots to each family on an annual basis
- Generation of revenue from agroforestry plots allocation (980,000 GNF)
- Generation of revenue from fire wood (240,000 GNF)
- Generation of income from bamboo (990.000 GNF)
- Local bank account at the Community Bank (8.327.150 GNF)



USAID
FROM THE AMERICAN PEOPLE



Guinea

Institutional Support Program: Small Scale Even-Aged Plantations

- *More profitable and sustainable forest management leads to decreased environmental forest degradation*
- *Community-based forest, landscape, and biodiversity management models and best practices are institutionalized and scaled-up*
- *Institutional strengthening, training, and collaboration lead to improved performance of national NRM agencies*
- Long-term sustainable NRM technology
- Fast growing exotic species, returns come as early as 7 years, and the investment keeps on giving for many decades, with minor labor inputs
- Secure the land tenure rights
- Ecological service benefits for the landscape
- REDD + and other climate change mitigation adaptation, Low Emissions Development Strategies (LEDS), sustainable landscapes, and renewable clean energy



USAID
FROM THE AMERICAN PEOPLE



USGS

Guinea

Capacity-Building for Sylviculture





USAID
FROM THE AMERICAN PEOPLE



USGS

Guinea

Plantation Economics, Finance, & Marketing

- 1,523 m³ of *Acacia mangium*. Economic value before harvest estimate = 81,019,000 GNF (\$16,203.80). After harvest: 36,019,000 GNF (\$7,203.80) :
 - **Example of one plantation:**
 - **805** *A. mangium* inventoried:
 - **136** trunks with **D ≥ 40 Cm**
 - **371** trunks with **D ≥ 20 Cm**
 - **142** trunks with **D ≤ 20 Cm**
 - **156** trunks with poor formation.
- Contact with wood traders to establish relations between plantation owners and timber entrepreneurs.
- Potential economic for private and GOG; ecological services of plantations; After 12 yrs of plantations, with minor maintenance costs, owner earns ~ \$7,000.





Guinea

Balayan Souroumba Classified Forest, 1967 and 2008:
Forest Integrity is excellent and has improved over time

1967

2008





USAID
FROM THE AMERICAN PEOPLE



USGS

Guinea

Forest Co-Management





USAID
FROM THE AMERICAN PEOPLE



Sierra Leone

Piloting Forestry Co-Management in Sierra Leone

- PAGE – Promoting Agriculture , Governance and Environment
13.2 million dollar USAID funded program (ACIDI/VOCA, ARD Inc. WVI)
- Piloting participatory forest management as part of a multi-sectoral development effort 2008-2012
- PAGE(led by ARD Inc.) is piloting 3 models –community forests, govt. forest reserves, protected areas



USAID
FROM THE AMERICAN PEOPLE



Sierra Leone

FCM in Sierra Leone: definitions, implications, and pilots

- PAGE is facilitating development of legal agreements between GoSL –Forestry Division and communities to manage forest areas
- Elements of the process: PRA's, organizing communities, land use planning, forest/wildlife inventory and monitoring, forest management plans
- Implications: Changes in Land Use, Power Relations, Benefit Sharing/Revenue Sharing



USAID
FROM THE AMERICAN PEOPLE



Sierra Leone

The challenges to FCM in Sierra Leone

- Lack of clarity on roles, responsibilities and incentives (especially of District Councils and Traditional Authorities)
- Lack of clarity on the relationship between MAFFS field staff and District Councils
- Linking the new centralized 3C's (community, conservation , commercial forestry structure with field implementation)
- Limited human/institutional capacity



USAID
FROM THE AMERICAN PEOPLE



USGS

Niger

Land Cover Trends, Biodiversity, Land Management, and Adapting to Climate Change in West Africa

Changes in Land Use and Land Cover

- How are the natural and human landscapes changing?
- What are the rates and magnitudes of change?
- What are the causes and mechanisms of change?
- What impacts are the changes having?



What is the development problem?

Understanding land use/land cover change and land management will help countries balance food production with conserving their natural resources





USAID
FROM THE AMERICAN PEOPLE



West Africa Land Use/Land Cover Trends Project

- Develop and Implement a West African regional LULC monitoring framework in partnership with AGRHYMET, INSAH, and national institutions
- Produce LULC maps of West Africa for the periods of 1972, 1985, and 2000
- Provide information to CILSS and ECOWAS food security and natural resource management programs
- Engage decision-makers in the results of LULC trends



Niger

Tree Cover at Galma, Niger: Which is the earlier photograph?





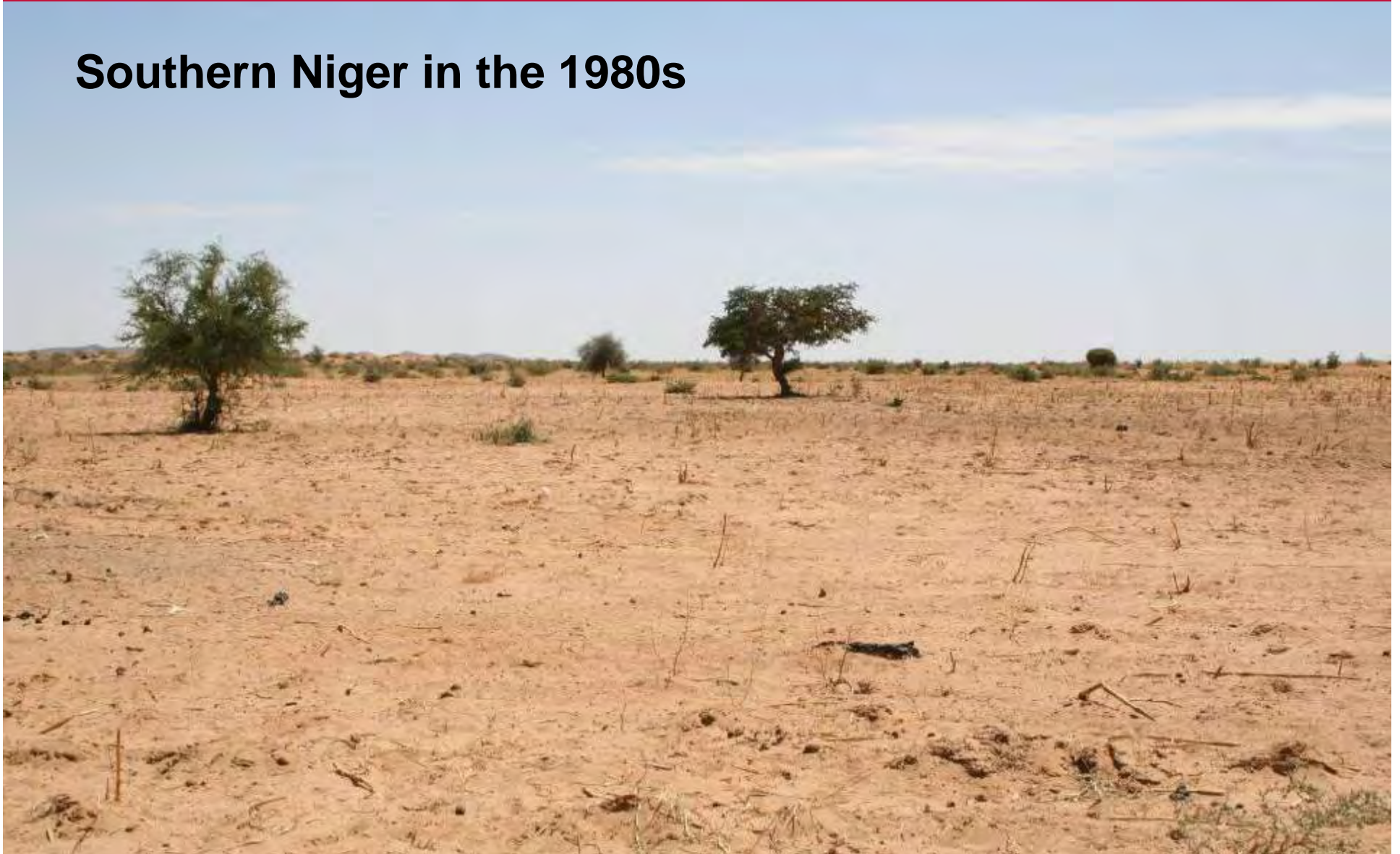
USAID
FROM THE AMERICAN PEOPLE



USGS

Niger

Southern Niger in the 1980s





USAID
FROM THE AMERICAN PEOPLE



USGS

Example of a Mature *Faidherbia albida* Parkland



USGS



USAID
FROM THE AMERICAN PEOPLE



USGS

Niger

What induced farmers to protect and manage on-farm natural regeneration?

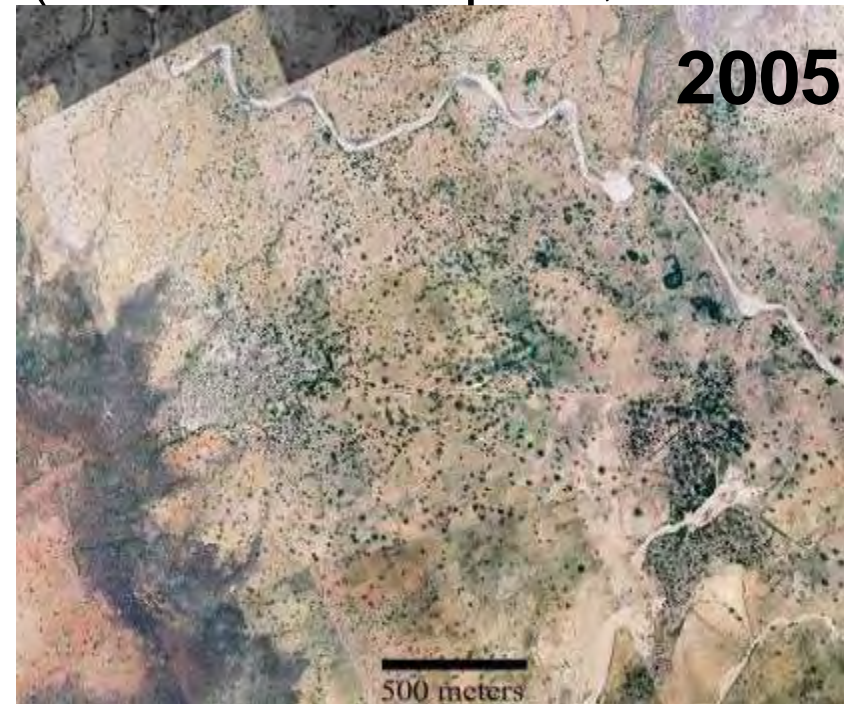
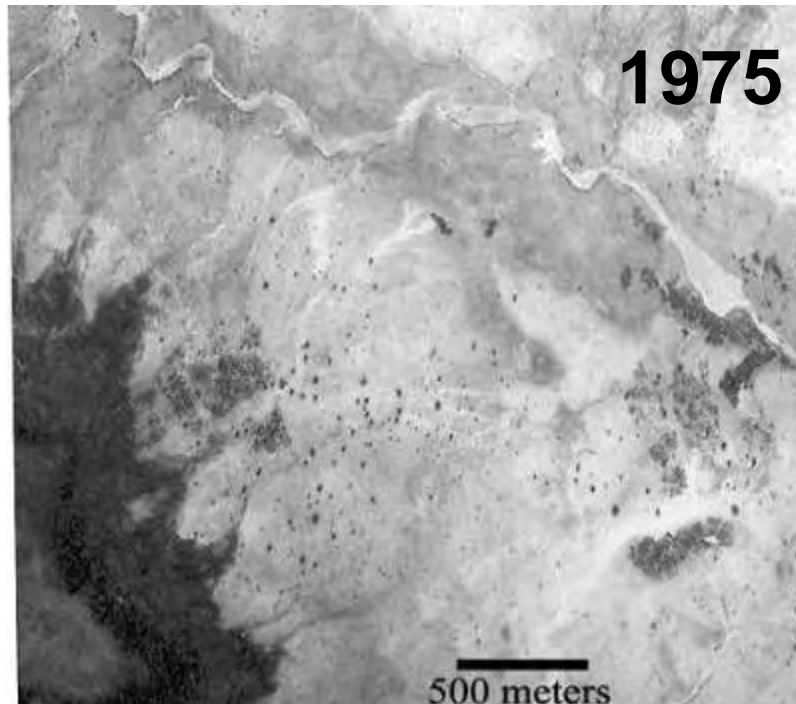
- The environmental (drought) and economic crisis of the 1970s and 80s
- The increasing population pressure on natural resources
- A perceived change in ownership of trees since the mid-1980s
- The multiple benefits generated by on-farm trees



Niger

Quantifying Tree Cover Trends at Galma, Niger

- 4 Trees/ha
 - 2.9 tons woody biomass/ha
 - 1.4 tons C in woody biomass/ha
 - 3 tree species/ha
 - 22 Trees/ha
 - 16 tons woody biomass/ha
 - 7.2 tons C in woody biomass/ha
 - 6 tree species/ha
- (based on field plots, March 2007)





Senegal

Economic Growth, Landscape Management

- NRM: trade of local products, biodiversity, enabling environment – need the law
- Create wealth out of these resources: NWP
- 15, 000 tons of cashew exported: value of \$7.2 million
- Wula Nafaa Project: NTFP, Karaya Gum marketing to Pharmaceutical Co. 265 tons exported to France for value of \$1 million
- Charcoal production shifted from unmanaged to managed forests
- 300+ new charcoal producing enterprises > revenues by 1,129%
- 4 forest management plans for over 100,000 ha
- 16 local conventions covering 2,500,000 ha
- Increase in exports of \$3 million
- 6,000 new jobs





Senegal

Land Cover Modification: Decline in Biodiversity

Woody
Species at Site
403 – Mar.
1984

- Combretum micranthum*
- Combretum nigricans*
- Combretum glutinosum*
- Bombax costatum*
- Adansonia digitata*
- Acacia macrostachya*
- Acacia polyacantha*
- Gardenia ternifolia*
- Grewia bicolor*
- Lannea acida*
- Lonchocarpus laxiflorus*
- Sclerocarya birrea*
- Sterculia setigera*
- Strychnos spinosa*
- Feretia apodanthera*
- Boscia angustifolia*
- Gulera senegalensis*
- Pterocarpus lucens*



1984

Woody
Species at
Site 403 –
Feb. 1994

- Combretum micranthum*
- Combretum nigricans*
- Combretum glutinosum*
- Bombax costatum*
- Acacia macrostachya*
- Adansonia digitata*
- Grewia bicolor*
- Sterculia setigera*
- Boscia angustifolia*
- Gulera senegalensis*
- Pterocarpus lucens*



1994



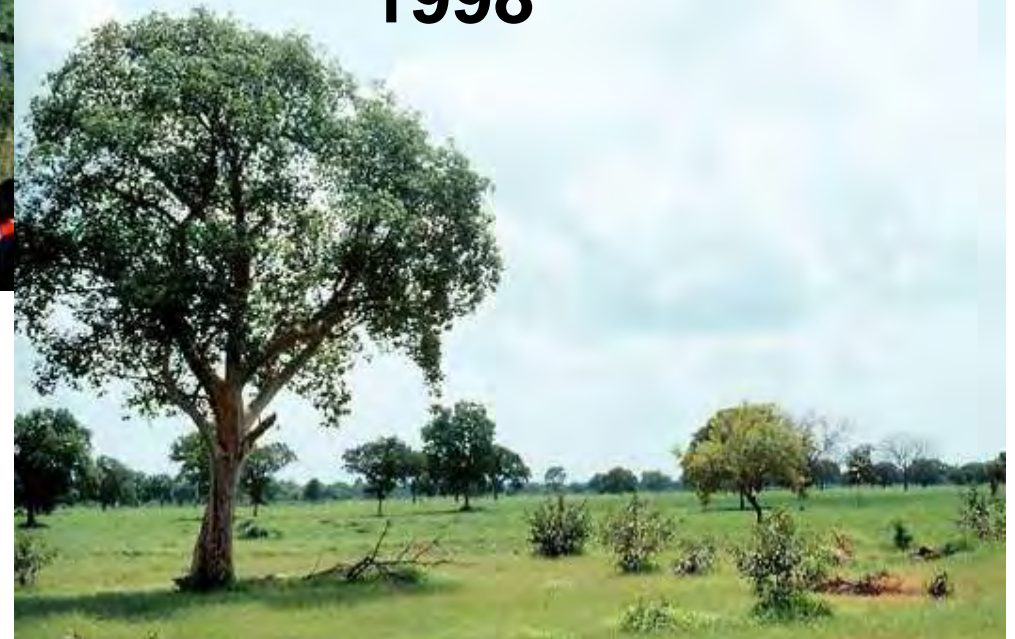
Senegal

Land Cover Conversion: Woodland to Agriculture

1983



1998





USAID
FROM THE AMERICAN PEOPLE



Interpretation Exercise



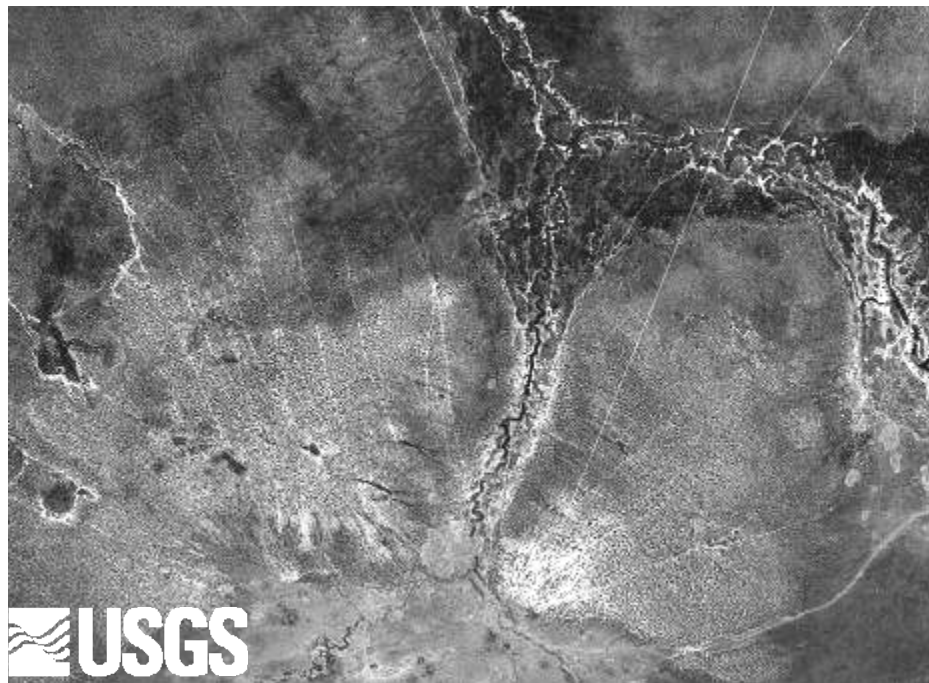


Senegal

Spread of degraded and barren surfaces (Senegal)



Revane area, Oct. 1999, Landsat
Revane area, Dec. 1965, Corona



Percent Woody Cover

1965: 10 – 20 %

1994: 5 – 15 %



USAID
FROM THE AMERICAN PEOPLE



USGS

Senegal

Basic Conclusions on Senegal Land Cover Trends

- **Good news: rates of agricultural expansion into Senegal's woodlands and savannas is slower than what most official figures have claimed**
- **Rates of agricultural expansion have slowed since the mid 1980s**
- **Bad news: Senegal's vegetation cover has significantly declined since the 1960s, both in terms of its density, and in terms of its biodiversity**



USAID
FROM THE AMERICAN PEOPLE



Cameroon

Forest Co-Management

- Communities' political rights to regain forest steward role - no palpable results, rather, "An organized corrupt system to give free rein to timber extraction in so-called agroforestry zone by elites and private investors, thus worsening the impoverishment of already pauperized local communities."
- Community forestry process is a governmental response to external pressure
- "Scattered like islands in a sea"
- In 2004: a total of 63 community forests were granted, 56 reserved but not yet granted, and 120 in the process of being reserved (CI).
- Integrated and participatory landscape approach to planning
- Costly and complicated application process
- "Blatant manipulation of the system" = local elites
- Human factors, connected with the ways women and men organize the use of their land and other resources.



Liberia

“Holding Hard Won Ground”

- The 3 Cs of Community, Conservation, and Commercial
- Hard push to keep Community Forestry on the priority list
- CF in new forestry policy and legal framework





USAID
FROM THE AMERICAN PEOPLE



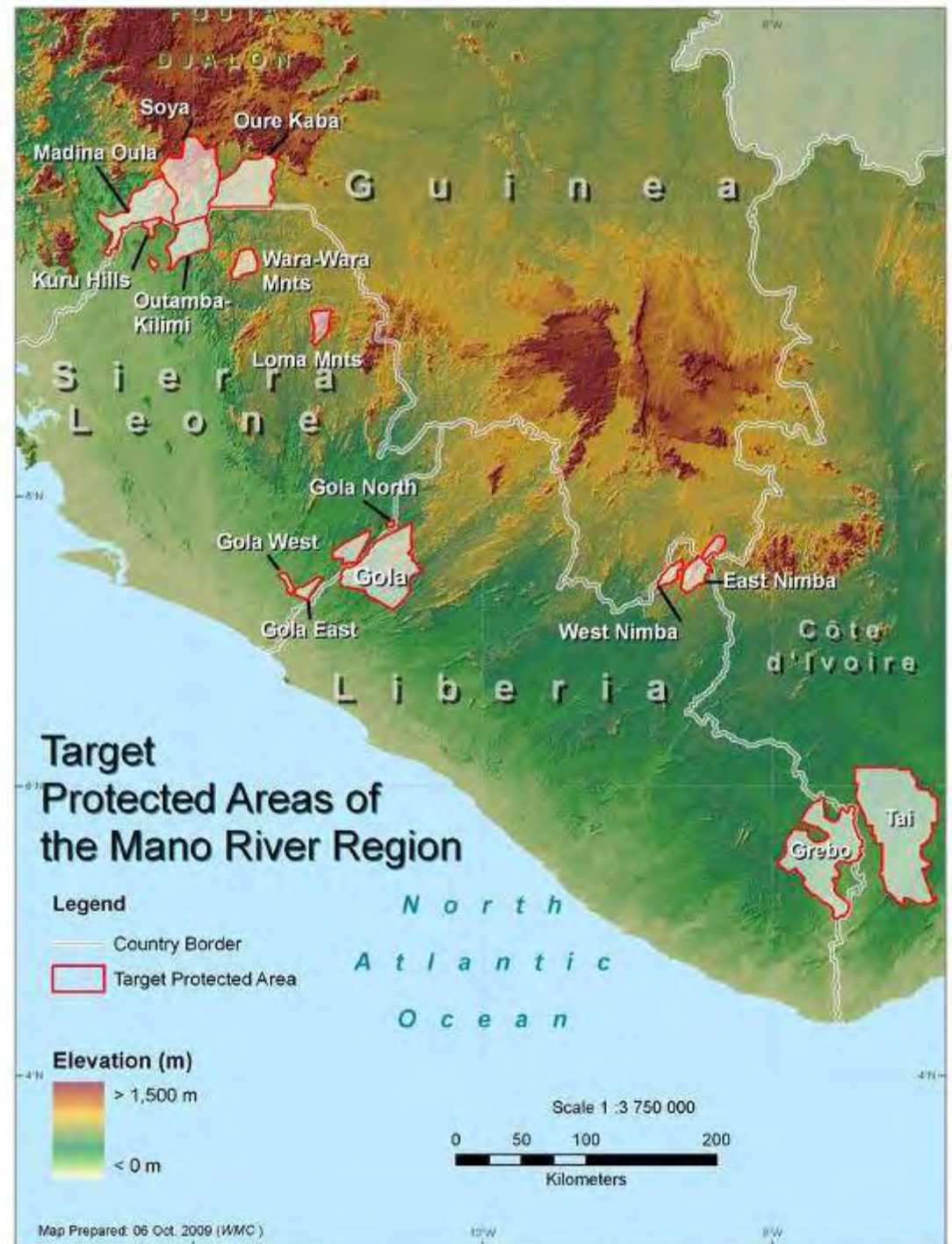
USGS

Technical challenges and opportunities



- **Transboundary PA Management**
- **Enabling Environments**
- **“Synergies for Success” aka meaningful partnerships**
- **Capitalizing on previous efforts/programs**
- **Private sector deals/alliances**

- # STEWARD Program:
- ## Upper Guinea Forest Ecosystem
- 420,000 km²
 - < 25% intact
 - Fragmentation & degradation
 - Restoration
 - Adaptation
 - Mitigation
 - BMP/Scale-Up





USAID
FROM THE AMERICAN PEOPLE



Key Cooperators in the Mano River Union countries:

U.S. Agency for International Development / West Africa

U.S. Forest Service / International Programs

Mano River Union

USAID STEWARD Program

USAID PAGE Project

Forestry Division, Min. of Agriculture, Forestry and Food Security/Sierra Leone

World Agroforestry Centre (ICRAF) & Center for International Forest Research (CIFOR)

Wild Chimpanzee Foundation

Union of Environmental Journalists

Royal Society for Protection of Birds

Nature Conservation Research Center, Ghana

Forest Development Authority, Liberia

Office Ivoirien des Parcs et Réserves

Société de Développement des Forêts (SODEFOR), Côte d'Ivoire

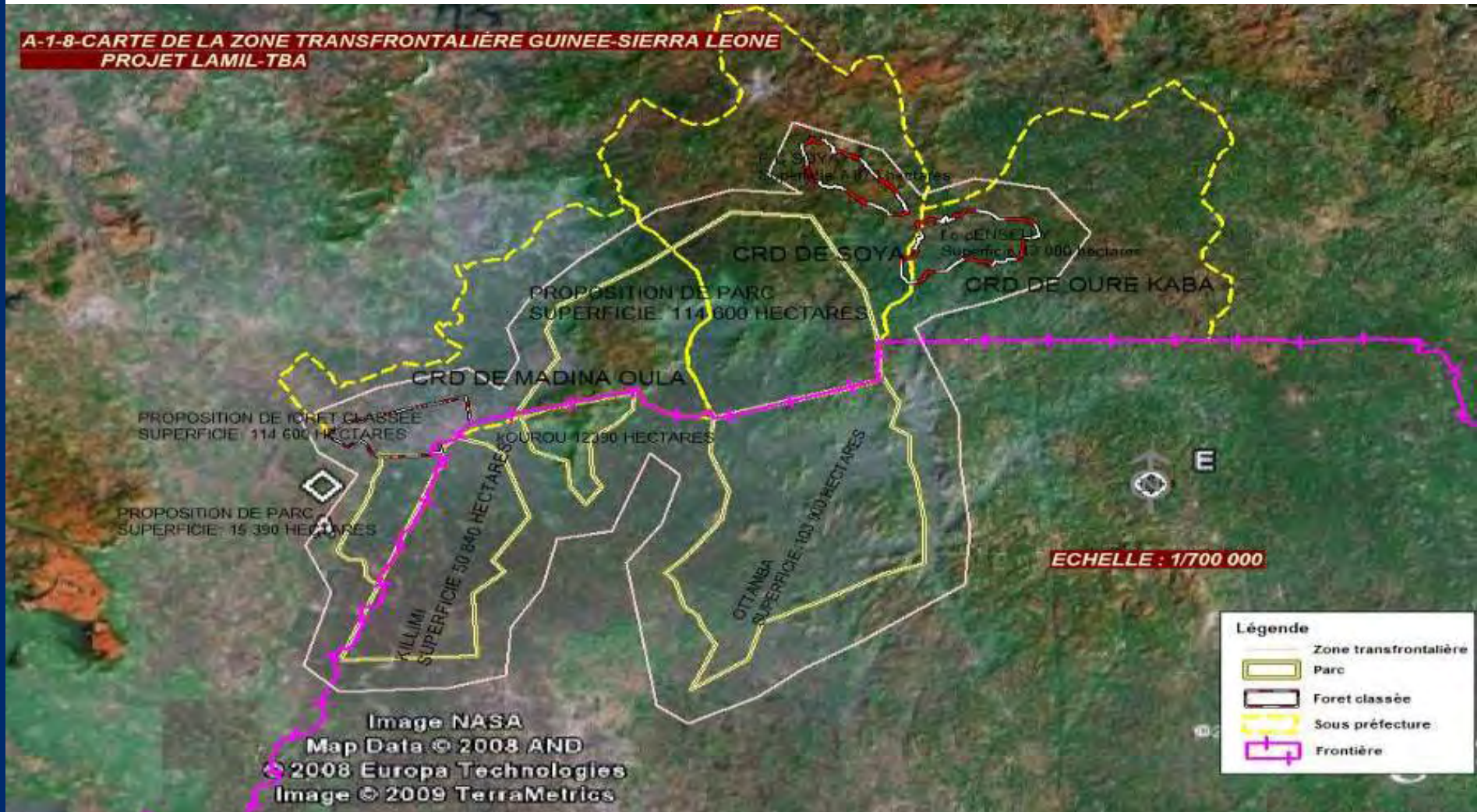


USAID
FROM THE AMERICAN PEOPLE



Guinea-Sierra Leone Transboundary Zone: Proposed Network of Protected Areas and Buffer Zones

**A-1-8-CARTE DE LA ZONE TRANSFRONTALIÈRE GUINEE-SIERRA LEONE
PROJET LAMIL-TBA**





USAID
FROM THE AMERICAN PEOPLE



Short and variable rainy season

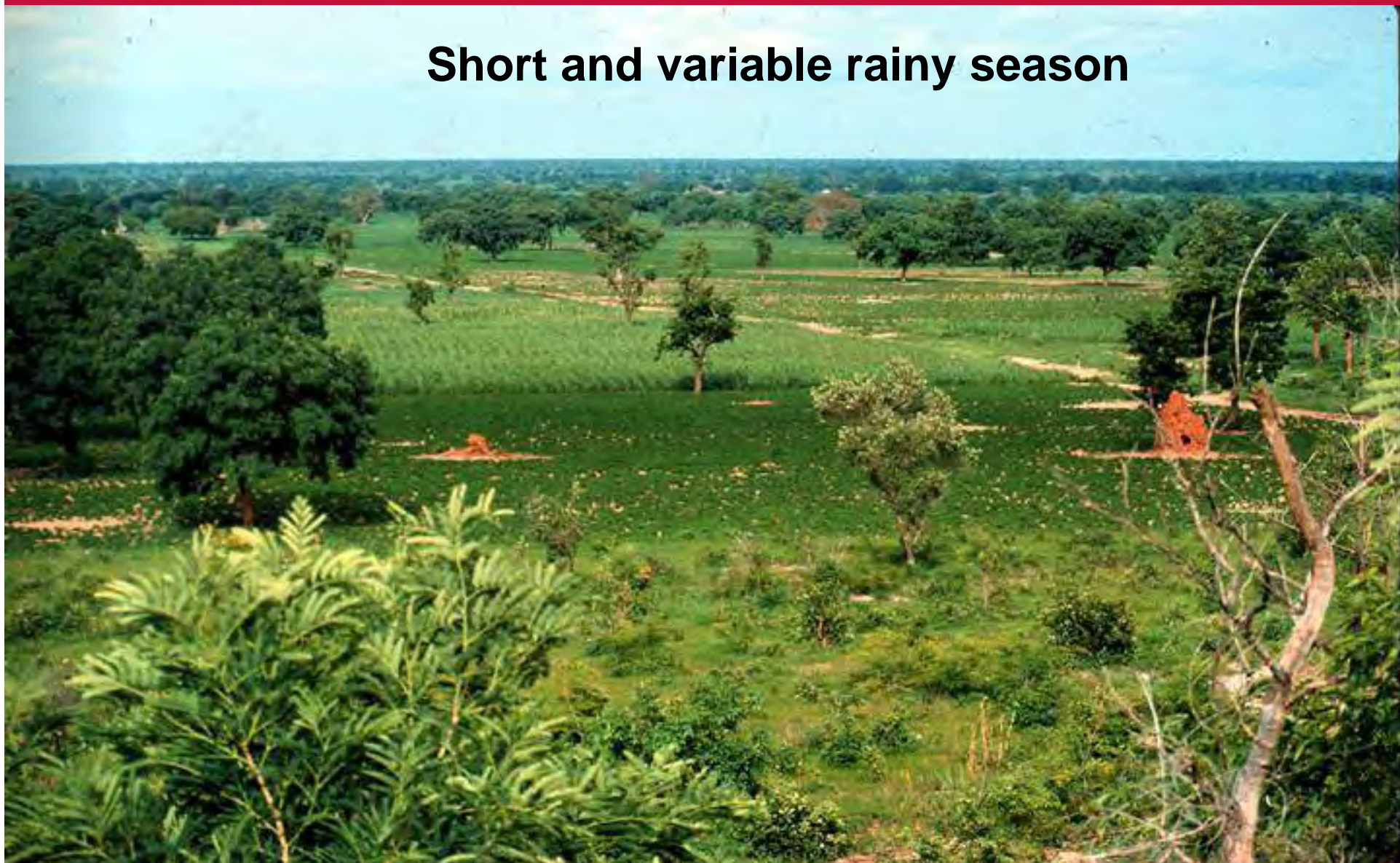




USAID
FROM THE AMERICAN PEOPLE



Short and variable rainy season





New challenges

- Climate change adaptation
- PES and REDD
- DRC community forestry
- Indigenous forest peoples rights and responsibilities





USAID
FROM THE AMERICAN PEOPLE



Climate Change

- I.D. investment opportunities
- Enabling environment indicators
- Adaptation: reduce vulnerability
- Mitigation: power sector, fuel, traditional
- Low Emissions Development Strategies
- PES and REDD
- Indigenous forest peoples rights and responsibilities
- Carbon market readiness
- AF systems offer an enormous potential for carbon sequestration



New challenges



- Threats of mining, pitsawing, bushmeat are also most lucrative activities
- Conservation challenges in terms of managing large areas: co-management?



Insights



- NWP is just the starting point
- Building civil society overall is critical
- Clarity needed with increasing complexity and multiplicity of institutions and levels
- Legalization of “illegal” value chains through property rights
- Loyal partnerships thru funding cycles