Second National Communication of NIGER

A presentation at UNFCCC COP 15

Copenhagen, November 7, 2009

Outlines

- National circumstances & key challenges in the preparation of the 2nd National Communication
- Greenhouse Gas inventory & Mitigation
- Vulnerability & Adaptation Assessment
- Lessons learnt & Next steps
- Conclusion

National Circumstances

Area: 1,267,000 km^2

~2/3 – Sahara Desert

West African Country, member of CILSS & ECOWAS

National circumstances (ctnd)

- **Population**: 13.4 Millions, 84% rural, women ~ 51%, under 15 years - 49%, food insecurity ~ 30%, poverty ~ 59.5%
- **Natural resources**
  - Agricultural potential ~ 12% of the total land area;
  - Water resources: River Niger, part of Lake Chad, underground waters ~30 $Gm^{3,}$ only 1% exploited;
  - Vegetation: mostly *Acacia tortilis* & *Aristida mutabilis;*
  - Fauna: 168 species of mammals, 512 of birds, 150 of reptiles and amphibians, and 112 of fishes and invertebrates
  - Mineral resources: Uranium, Coal, Oil, Phosphates, Tin, Gold, Platinum, Manganese, …..etc
- **Energy consumption** ~150 kep/hab/yr, ligneous - 87%, petroleum products – 7%, access to electricity – 2% of the population

Key challenges in the preparation of the 2nd National Communication

Two main difficulties encountered:

- Availability of disaggregated data for GHG inventory, for the energy sector; lack of national inventory for forestry sector in LULUCF; lack of data on biomass burning and utilization of residues in rural areas, and waste; adequacy of conversion factors with respect to livestock and some agricultural products;
- Availability of sectoral models for vulnerability assessment in the key sectors of agriculture, water resources and health.

Greenhouse Gas inventory & Mitigation

- Sectors
  - ✓ Energy
  - ✓ Industrial Processes
  - ✓ Agriculture
  - ✓ Land use, land use change & Forestry
  - ✓ Biomass emissions
  - ✓ Waste
  - ✓ International bunkers

- Methodology: IPCC guidelines for National GHG inventory (Revised version of 1996)

GHG inventory

GHG emissions ($CO_{2\ eq.}$) by sector in 1990, 1995 & 2000

	1990		1995		2000	
Secteur	Valeur (Gg)	%	Valeur (Gg)	%	Valeur (Gg)	%
Energie	928,47	10,42	1 001,20	5,52	2 622	8,51
Agriculture	1 839,55	20,64	1 173,40	6,47	10 656	34,60
UTCATF	6 106,26	68,52	15 552,11	85,73	17 132	55,62
Procédés industriels	9,56	0,11	14,44	0,08	18	0,06
Déchets	28,22	0,32	399,94	2,20	373	1,21
Total	8 912,06	100,00	18 141,09	100,00	30 801	100,00

Base year 2000

- CO2 Emitted : 1905 Gg
- CO2 removals: - 16 917 Gg
- CO2 per capita emission: 0.2 t

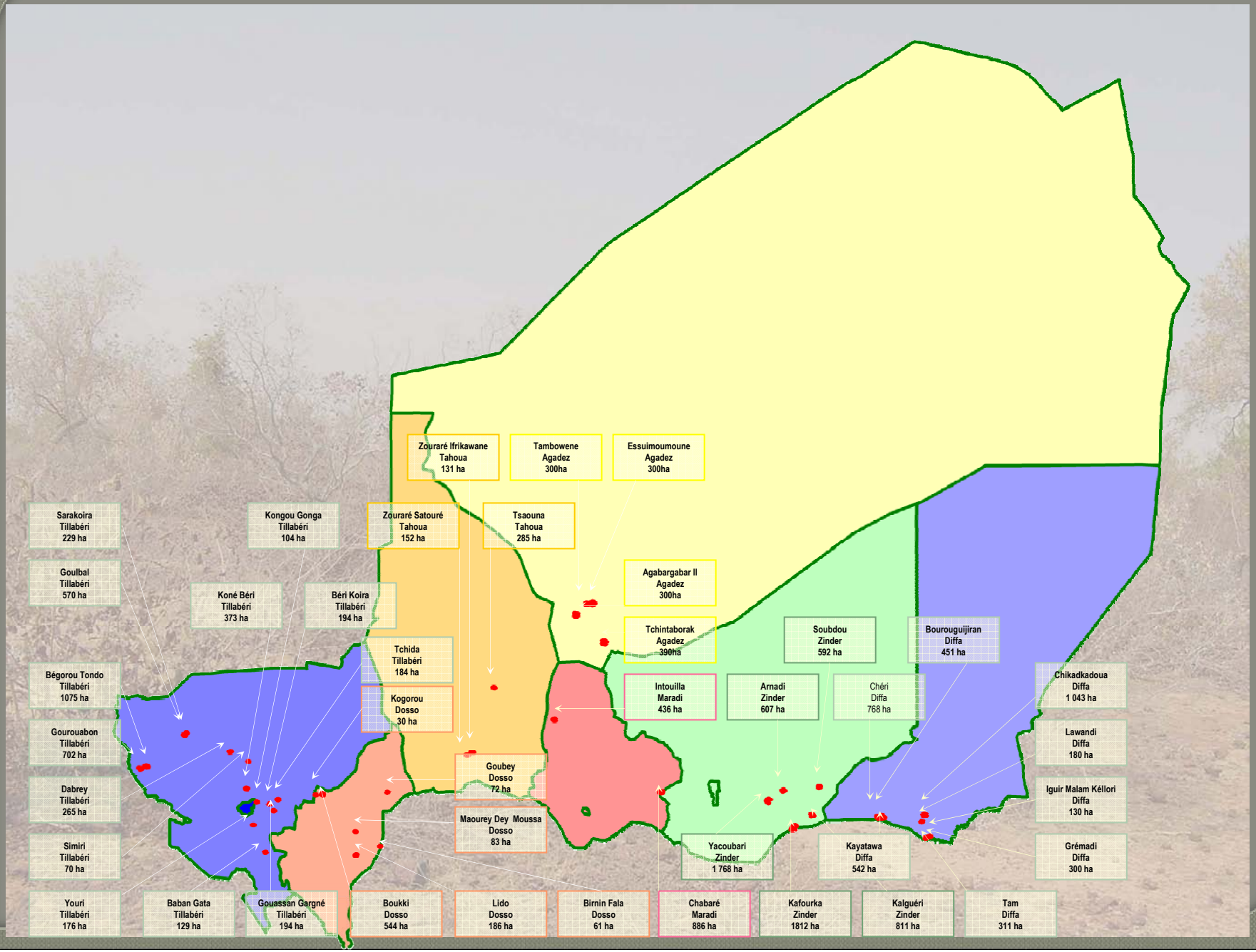
Mitigation & Poverty Alleviation Actions

1.Restoration of degraded lands ~ cutting carbon emissions by s.a. soils;
2.Carbon sequestration project – gum tree planting

First rains

2 months later

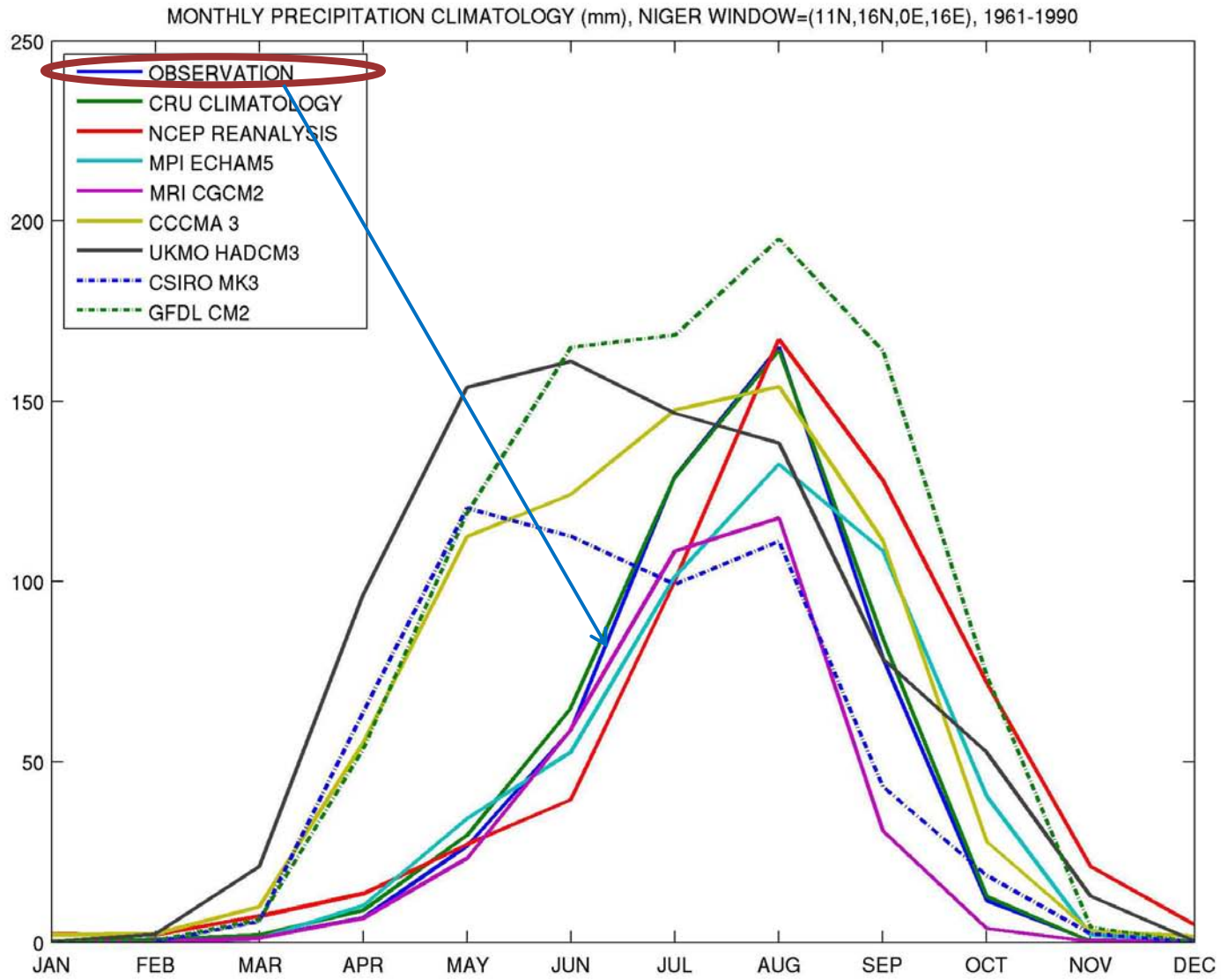
Totally recuperated degraded land = 360 000 ha between 1985-2008



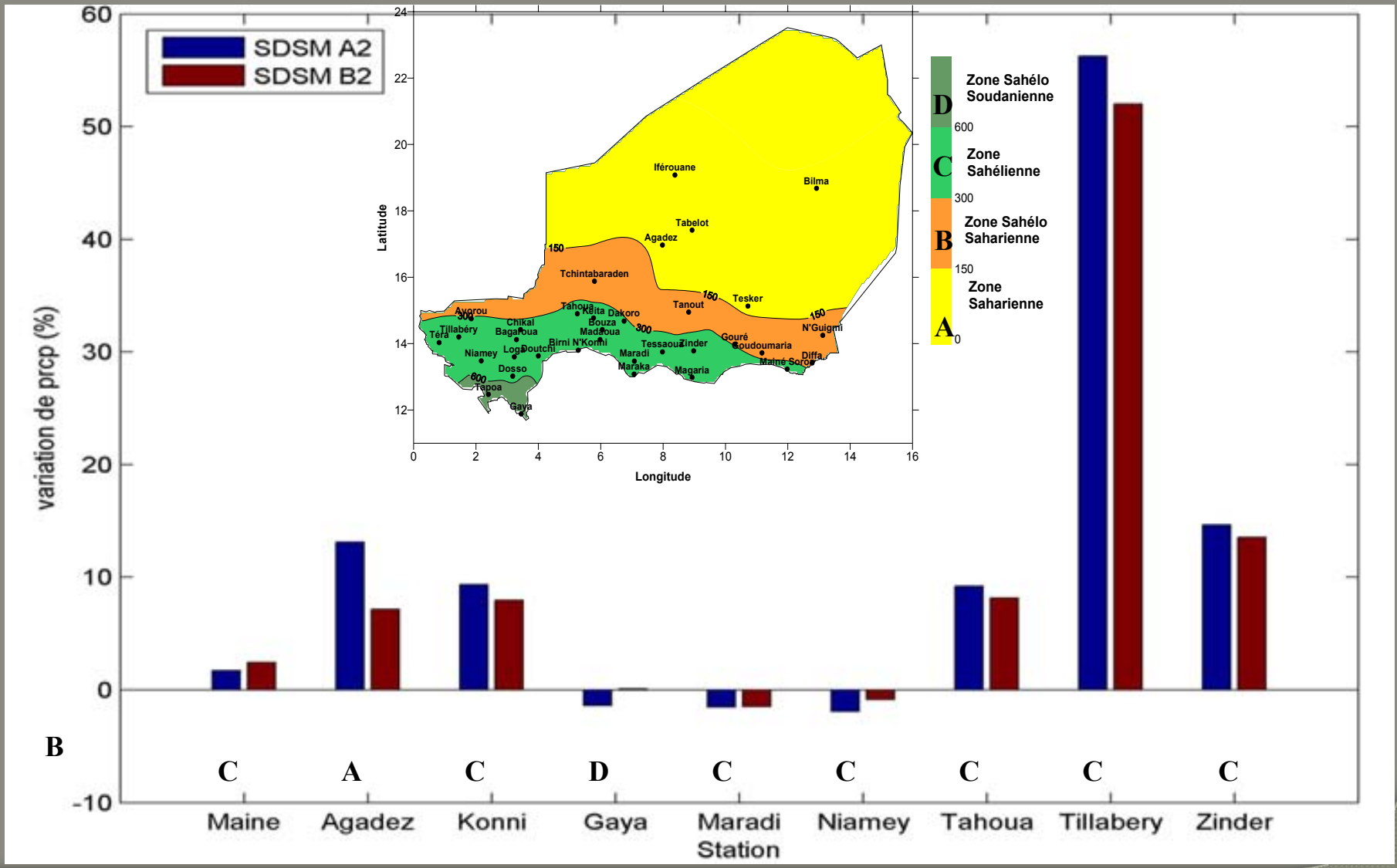
Vulnerability & Adaptation Assessment

- The Climate Challenge in the Sahel 
- Climate Scenarios for Niger
- Sectoral vulnerability
- Building Climate resilience and Adaptation

Vulnerability & Adaptation Assessment (cntd…)



Summary of SDSM climate profiles for NIGER Precipitation: 2020-2049



Summary of SDSM climate profiles for NIGER
Maximum Temperature: 2020-2049

	99e centile Tmax (°C)	Variation A2 (°C)	Variation B2 (°C)
Tillabéry	44.2	1.9	1.7
Maine	43.5	2.1	2.0
Agadez	43.7	0.9	0.8
Konni	43.4	2.2	1.9
Gaya	42.6	1.6	1.3
Maradi	42.5	3.3	2.5
Niamey	43.4	0.8	0.9
Tahoua	43.6	2.5	2.4
Zinder	42.5	2.3	2.1

The summertime mean maximum temperature exhibited a 5% increase on average between 1950 and 1999, its evolution is almost opposite to that of rainfall.

Vulnerability & Adaptation Assessment (cntd…)