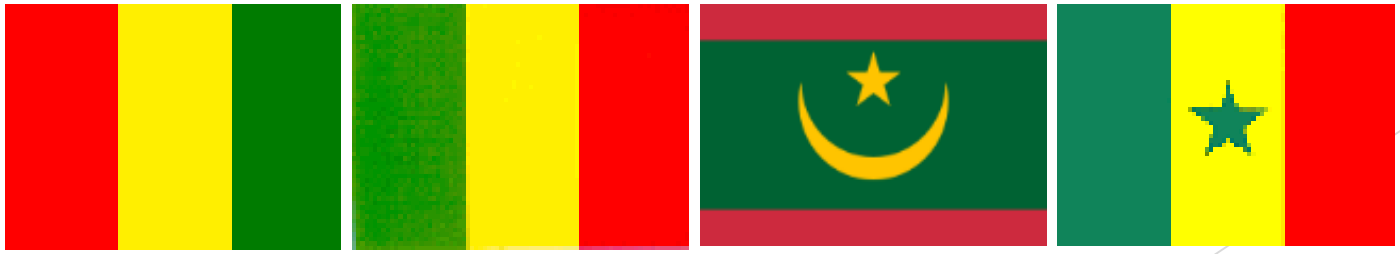
HAUT COMMISSARIAT

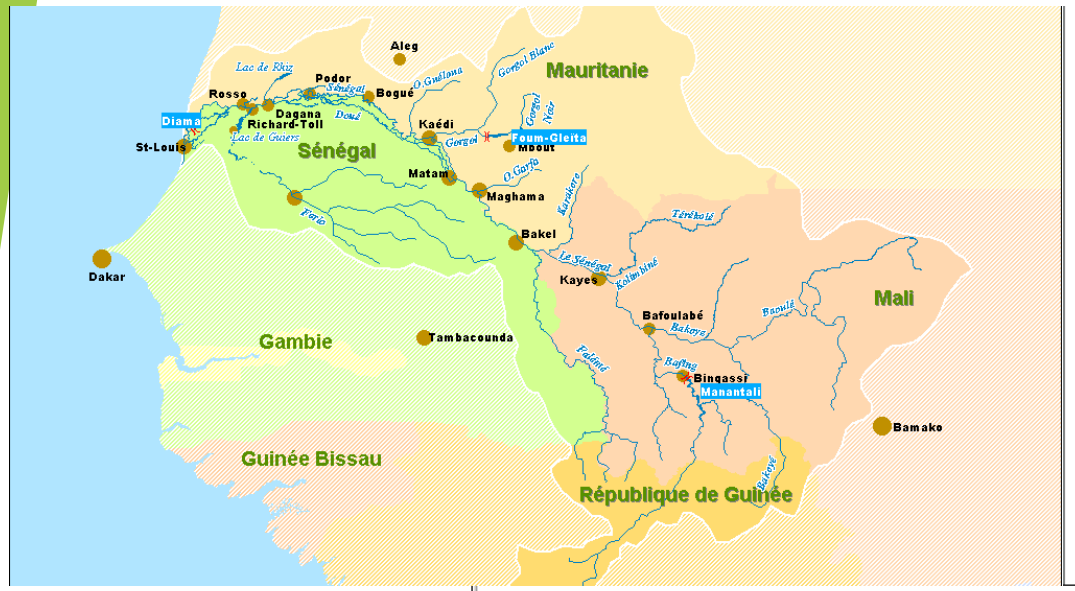
INBO WEBINAR

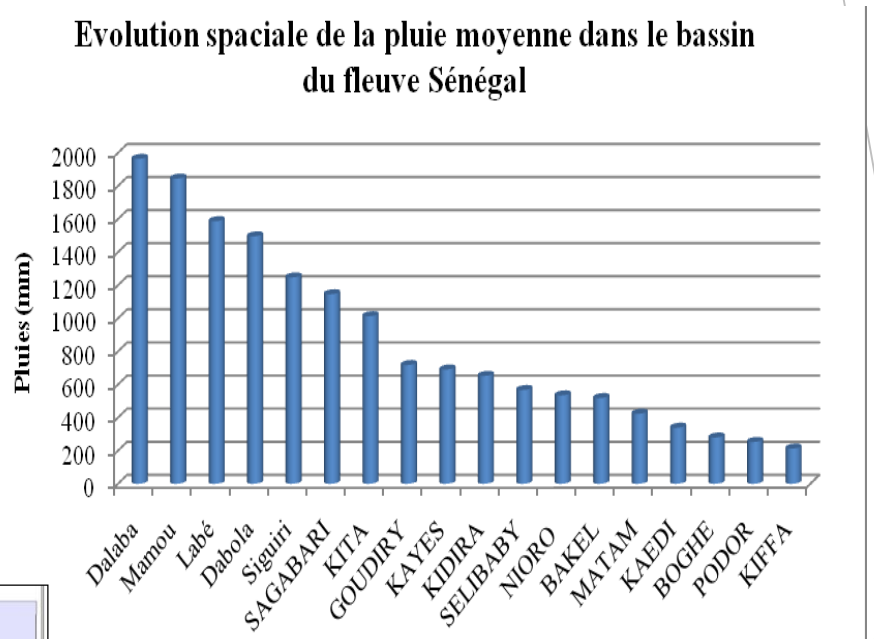
"ADAPTING TO CLIMATE CHANGE: THE COST OF NOT TAKING ACTION".

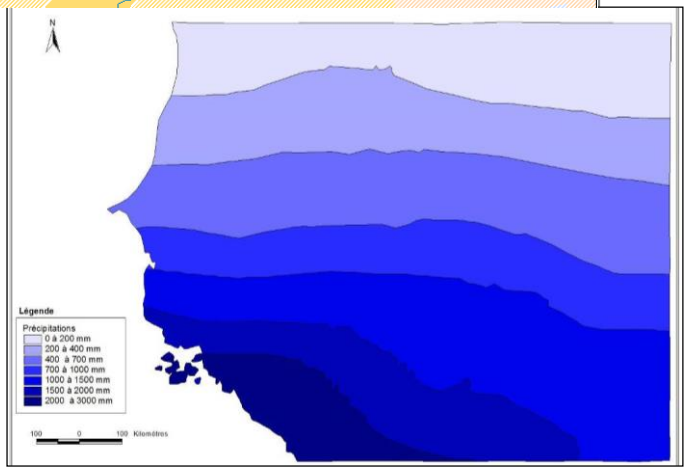
VIDEOCONFERENCE, TUESDAY, OCTOBER 13, 2020, FROM 4:00 PM TO 5:45 PM



1. PRESENTING OMVS







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1. Do current findings provide a basis for defining sufficiently "credible/accurate" water resource scenarios?

Findings from the study on the basin's vulnerability

- Numerical Weather Prediction Models
- Climate models with uncertainties related to chaotic processes inherent to the atmosphere and surface/atmosphere interactions
- 3 studies made with the same findings
- Selection of an ensemble average comprising several simulations (or members) provides a probabilistic prediction including the uncertainties associated with the models.
- Overall average of 29 CMIP5 global climate simulations (Coupled Model Intercomparison Project, Phase 52, 2007).
- Historical and future simulation data at the scale of 22 stations for CMIP5 models. The reference period used is 1975-2004

« According to the current state of knowledge, the sole fact is that the climate trend in the basin is uncertain.

The studies' conclusions point to major uncertainties and discrepancies in most of the characteristics of the future climate in West Africa and in particular in the Senegal River Basin.

The only area of converging climate predictions for the river basin concerns the climate's changing trends. From the various consultative works, there is agreement that the average temperature of the basin will be higher than the one currently observed.

The predictions are divergent with regard to future rainfall and runoff, and subsequently as concerns non-fossil aquifers .

General findings for the next 5-10 decades :

- Significant increase in average temperature ;
- Decrease in average rainfall, less marked decline in the Guinean river headwaters than in the rest of the basin.
- Decrease in average flows. The relative concordance on this issue led the authors of the Updated Hydrological Monograph of the basin to conclude that: "...data on the future climate trend is very incomplete, even contradictory. The only recorded fact is the regular decrease in river water levels" (Bader and Cauchy, 2013).
- Drop in the static level of the aquifers (which would be a natural consequence of the drop in the river's runoff);
- A greater scale and frequency of extreme events (floods, drought, etc.).

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2. What conclusions could be drawn from your comparisons between "business as usual" and "ecological voluntarism"?

- Relevance of seeking in-depth knowledge
- Knowledge-related actions: Recent studies / research
  - ✓ TDA / SAP
  - ✓ Vulnerability ,
  - ✓ Study of the basin characteristics
  - ✓ Climate projections and scenarios in the Senegal River Basin Within the framework of Food Security: Adapted Agriculture (SAGA) project, Integrated Water Resource Management in Climate Change Conditions component
  - ✓ Data
  - ✓ Field actions
  - ✓ Micro-projects
  - ✓ Other programmes: SDAGE (Master plan for the development and management of the river waters) and PIC (Climate Investment Plan).

- Actions conducted in the 4 countries
- Guinea: knowledge, practical measures
- Mali: knowledge, practical measures
- Mauritania: knowledge, practical measures
- Senegal: knowledge, practical measures
- Conclusions on the "ecological voluntarism of the States

CONCLUSIONS

General observations on models, data and the specific case of the Senegal River Basin

Findings on the risks of not taking action at the economic, social, environmental, etc. levels.

The option to take responsible action of "ecological voluntarism" at national and regional level

Aims and prospects