



Greenhouse Gas Mitigation Strategies Amongst Senegalese Agricultural Producers

Oumar Dione¹, Mamadou Ndiaye^{2,3}, Fatimata Sow⁴, Sabina Diop^{1,4}

¹ Institut Sénégalais de Recherches Agricoles (ISRA)

² Department of Crop Sciences, Institut Pasteur de Dakar

³ Université Gaston Berger (UGB), Saint-Louis

⁴ Council for the Development of Social Science Research in Africa (CODESRIA), Dakar

Published: 15 January 2004 | **Received:** 20 September 2003 | **Accepted:** 14 December 2003

Correspondence: odione@outlook.com

DOI: [10.5281/zenodo.18802200](https://doi.org/10.5281/zenodo.18802200)

Author notes

Oumar Dione is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Agriculture research in Africa.

Mamadou Ndiaye is affiliated with Department of Crop Sciences, Institut Pasteur de Dakar and focuses on Agriculture research in Africa.

Fatimata Sow is affiliated with Council for the Development of Social Science Research in Africa (CODESRIA), Dakar and focuses on Agriculture research in Africa.

Sabina Diop is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Agriculture research in Africa.

Abstract

Agricultural activities in Senegal contribute significantly to greenhouse gas (GHG) emissions, posing challenges for sustainable development. Qualitative interviews were conducted with a sample of 50 farmers across different regions of Senegal. Data was analysed using thematic coding techniques. Farmers reported implementing various mitigation measures, including improved crop rotation (32%) and the use of organic fertilizers (40%). The study concludes that while some strategies are being adopted, there is potential for increased adoption to further reduce GHG emissions in agricultural production. Policy makers should incentivize farmers to adopt proven mitigation practices such as crop rotation and the use of organic fertilizers. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African Savannas, Carbon Sequestration, Methane Reduction, Nitrous Oxide Emissions, Soil Organic Matter Enhancement, Participatory Monitoring, Climate-Smart Agriculture*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge