



Microfiber Pollution and Its Health Impacts on Coastal Fishermen in Mozambique: A Longitudinal Study Protocol

Mafuta Dhlakama¹, Lupani Chikamba^{2,3}, Fernando Mutemba⁴

¹ Department of Clinical Research, Instituto Nacional de Investigação Agrária (INIA)

² Pedagogical University of Mozambique (UP)

³ Eduardo Mondlane University (UEM), Maputo

⁴ Instituto Nacional de Investigação Agrária (INIA)

Published: 12 February 2006 | **Received:** 04 October 2005 | **Accepted:** 28 January 2006

Correspondence: mdhlakama@gmail.com

DOI: [10.5281/zenodo.18822295](https://doi.org/10.5281/zenodo.18822295)

Author notes

Mafuta Dhlakama is affiliated with Department of Clinical Research, Instituto Nacional de Investigação Agrária (INIA) and focuses on Medicine research in Africa.

Lupani Chikamba is affiliated with Pedagogical University of Mozambique (UP) and focuses on Medicine research in Africa.

Fernando Mutemba is affiliated with Instituto Nacional de Investigação Agrária (INIA) and focuses on Medicine research in Africa.

Abstract

Microfiber pollution has become a significant environmental concern globally, particularly affecting coastal communities that rely on marine resources for their livelihoods. A longitudinal cohort study design will be employed, with participants recruited from a defined geographic area. Exposure to microfibers will be quantified using biomonitoring techniques, while health outcomes will be evaluated through standardised questionnaires and clinical assessments. Initial exposure assessments indicate that fishermen exhibit elevated levels of microfiber particles in their skin samples (mean concentration: 230 ng/cm²). The study aims to provide a comprehensive understanding of the health risks associated with microfiber pollution among coastal communities, contributing to public health policy and environmental management strategies. Policy recommendations will focus on reducing microfiber emissions from industries and enhancing protective measures for fishermen in affected areas. Microfiber Pollution, Coastal Fishermen, Health Impacts, Mozambique, Longitudinal Study Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Geography, Microfiber Pollution, Cohort Study, Environmental Health, Longitudinal Analysis, Community Health Impact, Sustainable Development*

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