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## The Role of Climate Uncertainty in Shaping Farmer's Behaviour: Case Study from Rural Côte d'Ivoire

MARIA DEL MAR MOURE PENA

*United Nations University (UNU), Institute for Environment and Human Security (EHS), Germany*

### Abstract

Growing climate variability and the inconclusiveness of medium and long-term projections for West Africa, in combination with structural dependency on agriculture and deep-rooted vulnerabilities exert high pressure on the livelihoods of farmers in rainfed systems of the region. In the face of climate uncertainty, there is increasing worldwide interest in incentivizing adaptation measures to climate change. At the local level, however, seldom do these efforts look past providing farmers with access to formal climate information as a means to reduce their uncertainty, while often tacitly assuming that awareness will lead to action. This research examines the relation between subjective climate uncertainties and behaviour changes among farmers in rural communities in the vicinity of the city of Gagnoa in Côte d'Ivoire. A survey complemented by qualitative research will provide the basis for the construction of a subjective uncertainty index. This index builds upon theories of vulnerability and risk, behavioural sciences and social psychology. The index encompasses three components: climate knowledge, disposition (perception of what can and should be done) and vulnerability (constraints to alternative behaviours). Expanding the notion of awareness as access to climate information, the component of knowledge in the index is complemented by traditional knowledge sources and the influence of past experiences. The degree of subjective uncertainty is hypothesised to influence the deviation from a baseline default behaviour, understood as a consistent behaviour under conditions of perceived normalcy. By examining from a cross-disciplinary perspective the different determinants that shape behaviour under uncertainty, the present research aims at providing a better understanding of decision-making among farmers and insights into potential actionable bottlenecks for the enablement of desired behaviours.

**Keywords:** Behaviour change, climate uncertainty, default behaviour, farmer's perception, vulnerability