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## Reinforcing the Agricultural Research and Extension Services in West Africa — Case of Rice

J. DANIELA HORNA<sup>1</sup>, HEIKO ZELLER<sup>1</sup>, MATTHIAS VON OPPEN<sup>1</sup>, AUGUSTIN MUNYEMANA<sup>2</sup>

<sup>1</sup>*University of Hohenheim, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Germany*

<sup>2</sup>*The West Africa Rice Development Association (WARDA), Rice Policy and Development Program, Côte d'Ivoire*

### Abstract

Stakeholders of the agricultural production system in West Africa have expressed the need for a more efficient extension system. Since producers are cash poor farmers an innovative service must be implemented in a way that the farmers as well as other stakeholders can contribute and feel the right to demand this service plus the responsibility to make it work. In Benin and Nigeria, research and extension services have received technical and financial support but its sustainability is still questioned. The main goal of this research is to study the feasibility and framework for an innovative research-extension support system, in order to boost the dissemination of technologies in a more cost efficient and sustainable way through empowerment of farmers, enhanced competition and increased accountability of stakeholders. The proposed system is based on the concept of knowledge broker (KB) and encompasses both participatory technology development and financial participation. The study area includes small villages located in the states of Ogun, Kogi and Ebonyi in Nigeria and the sub prefectures of Dassa and Glazoue in Benin. The Participatory Technology Development (PTD) project has completed its first 3-years phase and a second phase is envisaged. During the first phase some tools have been used to develop the knowledge base that will allow the implementation of the KB concept: **a)** crop production function, to assess the variability of factors affecting yields in farmers' fields; **b)** production system analysis to assess the effect of heterogeneity in resource base and input use across the regions; and **c)** stakeholder and institutional analysis to evaluate human and physical resources as well as technical, financial and institutional constraints to KB. During the second phase the KB concept will be implemented.

**Keywords:** Financial participation for extension services, institutional innovation, knowledge broker, participatory technology development