

THE POTENTIAL CONTRIBUTION OF BIODIVERSITY IN FOOD SECURITY AND POVERTY REDUCTION IN WEST AFRICA: ADOPTION OF IMPROVED VARIETIES OF FOOD CROPS BY SMALL FARMERS

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Biodiversity can play a critical role in ensuring food security and substantial incomes for small farmers in West Africa. Intercropping and the use of different plant species have sustained food demand for decades, but with increasing population and stagnant food production the per capita food production has been decreasing in most of the West African countries. The consequences of decreasing per capita food production are seasonal food insecurity, child malnutrition and rampant poverty. The chief constraints to increase in food production are high risks of crop failure linked to fluctuating rainfalls with drought pockets, pest and diseases and the wide spread use of low yielding local cultivars. Biodiversity would contribute to the decrease of farm risk and hence food security and poverty reduction through the diffusion and adoption of improved food crop varieties by small farmers. Among the food crop varieties to be widely diffused and adopted by small farmers are early maturing and drought escape cereal and leguminous varieties, pest and disease tolerant and resistant varieties which may decrease crop losses, high yielding cereal and leguminous varieties which can increase food production and leguminous species used in agroforestry systems aimed to sustain and increase the soil fertility. The diffusion of high quality seeds and pest resistant varieties can also increase the market value of crops and hence generate more incomes for farmers. The contribution of biodiversity through the development, diffusion and adoption of cereal and leguminous varieties will require a motivating policy and institutional environment which includes access to reliable input and output markets and mainly seed supply, a sound and participatory coordination between research, extension and farmers. The commitment of government, NGOs, private business, farmers and other stakeholders will be an incentive for a sustained contribution of biodiversity to food security and poverty reduction in West Africa.