Biodiversity as Adaptation Strategy for West African Farmers Towards Climate Variability

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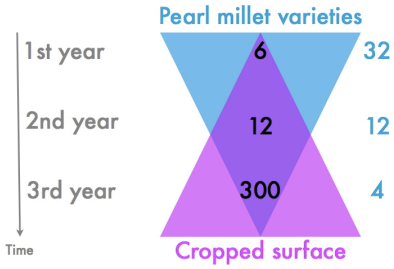
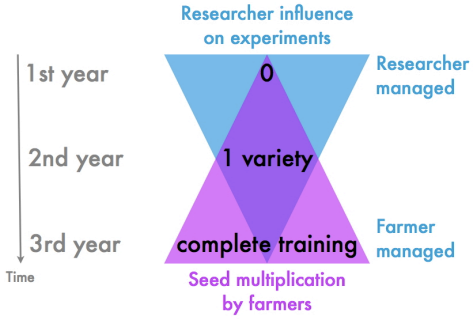
The CODE-WA project is funded by BMZ, co-ordinated by University of Hohenheim, and executed by ICRISAT in co-operation with NARS and local to regional farmer organisations (FOs) in Niger, Mali, Burkina Faso and Ghana. It develops strategies for West African farmers to adapt to climate variability. Emphasis is on increasing biodiversity at the crop and variety level, thereby reducing vulnerability to unpredictably variable climate. Two major approaches have been developed, which allow a relative fast adoption of new options at the farm and village scale: The **Opposite Pyramide Approach** and the **Vertical Farmer Exchange Visit**.

Opposite Pyramid Approach





In the first year a high number of crops and varieties are proposed to the collaborating FOs. The FOs decide about the options they would like to test.
During the cropping season farmers regularly visit the field experiments. At the end of the season a participatory evaluation takes place laying the base for the options to be tested in the second year. In the second and third year the number of options is consecutively reduced but the cropped area increased. This allows the farmers to test crops and varieties at relevant scales and under real conditions and prepares a smooth transition from testing to adoption.

In the first year the field tests happen on-farm but are researcher managed, since farmers do not have experience with most of the options introduced. From the second year onwards farmers consecutively take over the management. In the third year they are free to test the options according to their farm needs (i.e. in mixed cropping and with their own fertilisation regime).
From the second year onwards farmers are trained in appropriate seed multiplication techniques for each crop. This allows the perpetuate use of introduced crops and varieties. Some farmers even opt to become professional seed producers and thus develop a new perspective to increase farm income.

Vertical Farmer Exchange Visit

The CODE-WA project covers sites from semi-arid (Niger) to sub-humid (Ghana) climates. It promotes exchange of farmer experience across this climate gradient by organising farmer exchange visits among the CODE-WA sites. Thus farmers from the more arid sites can learn about farming under more humid conditions (i.e. excessive rainfall) and vice versa (i.e. intra-seasonal drought spells).

The collaborating FOs decide about the topics to be dealt with during the exchange visit and are responsible for preparation and execution of the presentations, supported by the researchers. Also venue and timing are chosen by the FOs. While in the first year topics covered farmer organisations and cash crops, the second year focused on staple crops. 2011 will cover minor crops.

Contents are increasingly oriented to practice. This includes excursions to farmer fields, irrigation schemes as well as communautary radio stations. But also preparation of various dishes from introduced crops is decisive to give a perspective to their use. Culinary tests complete activities to increase acceptance of new crops and cultivars, with the final goal to enhance biodiversity in farmer's field.

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