Aim: FRN for Agroecological Transition in the Sahel

The Farmer Federation FUMA Gaskiya operates with a wide network of partners, including nine Global Collaboration for Resilient Food Systems-funded projects, to foster agroecological intensification and agroecological transitions in pearl millet-based production systems in the Maradi region of Niger.

Activities included in this Farmer Research Network (FRN) around FUMA Gaskiya cover the whole value chain from seed production to value addition (Fig. 1). The developed agroecological intensification options are usually based on local resources and affordable to the most vulnerable and poor, thereby serving especially women farmers.

Highlights include . . .

- Farmer typology, i.e., knowledge of the FUMA Gaskiya farmers, enabling contextualized scaling.
- Annual large-N (>1500) farmer-managed trials assure inclusive testing and matching options to contexts.
- Farmer federation-owned data base.
- Digital data collection App (“FRN app”).
- Seed balls as risk minimizing strategy under dry planting in sandy soils.
- Sanitized human Urine (“OGA”) as fertilizer with 30% yield increase.
- Partial weeding to save women’s time and to reduce sand storm damage on seedlings.
- Experimenting with crop-tree-livestock integration, fodder crops, and urban-rural nutrient cycling.
- Biological control agent against the pearl millet head miner, other biopesticides.
- Local processing of ag products into easy-to-cook and nutrient rich food products.
- Sustainable diversification of production systems and own seed production: Total 12,000 tons of seed of 10 pearl millet, 8 sorghum, 5 cowpea and 6 groundnut varieties in the years 2016 to 2023.
- Climate risk assessment of tested options along a climate gradient.

Fig. 1: The Farmer Research Network around FUMA Gaskiya in Niger  

AUTHORS: Hannatou Moussa | Ali M. Amiou | Bettina Haussmann