

SUMMARY

Both Burkina Faso and Niger are two of the poorest countries in the world with millions of their citizens living below the poverty line. Both these countries lie in the Sudano-Sahelian Belt, the most fragile and least favorable ecological zone for development in all Sub-Saharan Africa. About 90% of the population engages in subsistence (smallholder) farming, living in small villages and farming communities, without access to grid electricity. One consequence of this fragility is stunting of children, an encompassing measure of chronic undernutrition. Increase in animal-source foods consumption has been identified as a viable solution. Increasing the scale of poultry farming among the rural poor (smallholder farmers), coupled with education to incorporate eggs and poultry meat in household diets and especially for children and their mothers, can be a potent solution to the endemic stunting problem. We propose to address the problem of low animal source protein consumption through expanded guinea fowl farming among smallholder households. In a research project in Burkina Faso, we will combine three established practices of: 1) All year round feeding of birds supplemented with fly larvae for increased productivity; 2) Synchronized hatching of guinea fowl eggs by chicken (Rakai Chicken Model, tested in Uganda), to produce many keets at once, yielding lower cost keets, among other advantages; and 3) Low-cost evaporative cooling egg storage, while waiting for enough eggs to accumulate, for increased fertile egg viability. In our first step (this proposed Focus project), we will test the combination of the practices with respect to achieving hatchabilities greater than 80%.