Shallow Groundwater Irrigation in the White Volta Basin (PN65)

Objectives

- Assess the current role of shallow groundwater irrigation (SGI) in securing livelihoods and reducing poverty in the White Volta basin;
- Develop improved management practices and policy recommendations for shallow groundwater irrigation.

***Where**:* White Volta sub-basin

Method / Activities

- Map the potential for SGI in the White Volta basin and explore the possibility for farmers to increase their production by using SGI along with appropriate agricultural practice to optimize the use of water for irrigation;
- Assess the potential of dryland farming for smallholder farmers growing tomatoes and onion and highlight its benefits, while enhancing agricultural statistics.

Key Achievements

- Stakeholders including extension agents and scientists have better understanding of the extent of SGI in the White Volta Basin. National partners in Ghana and Burkina Faso gained experience in the methods and tools used for SGI analysis and have deeper insights into farmers' knowledge and perceptions about constraints to SGI;
- Sharing of experiences and interactions with various stakeholders enabled the research team to refine the technologies and adapt them to the farmers' physical and socio-economic conditions.

Conclusions

- SGI is widespread in the White Volta Basin and already generates substantial income for smallholder farmers. Despite the tangible benefits, SGI is not accounted for in national agricultural water policies. The potential for up- and out-scaling of SGI is promising, and should be better accounted for in basin-wide agricultural water policies.

Value / relevance for the BDC

- Volta Project V1, *Targeting and scaling out*: PN65 has mapped the potential for SGI in the White Volta basin and has provided better understanding of the hydro-geological characteristics of shallow groundwater in the Atankuidi basin. It has also confirmed that benefits from SGI are substantial in terms of generating income.
- Project V4, *Sub-basin management and governance of rainwater and small reservoirs* and to some extent Project V3, *Integrated management of small reservoirs for multiple uses*: PN65 has highlighted SGI as a viable option to help optimize social and economic use of water while potentially minimizing undesirable environmental impacts. PN65 also has demonstrated that stakeholders' priorities and choices tend to be favorable to SGI.