## **Agricoops Case Study on Climate Change**

Agricultural cooperatives as many other farmer-based organizations in Ghana are experiencing its fair share of climate change and its variability impacts on their operations. Several assessments conducted locally and internationally indicate the vulnerability of Ghanaian agriculture and food systems because of the heavy dependence on rain fed production systems.

Climate change effects in Ghana are increasing temperatures across all agro- ecological zones, and variable and unpredictable rainfall. This phenomenon is resulting in longer than normal dry spells during growing seasons, shifting of growing seasons and increasing occurrence of extreme weather temperatures. Additionally, sea level rise is resulting in destruction of coastal communities resulting in disruption of livelihoods within fishing cooperative. A major outcome of current situation is the estimated economic impact that lowers the incomes of vulnerable population and increases peoples' risk of hunger.

Ghana is one of the lead countries implementing the West Africa Agriculture Productivity Program, a regional program aimed at increasing farmer level productivity as a major contribution to ensuring regional food security. The production focus area for Ghana is the development and dissemination of root and tuber crop technologies. However, the scope of commodities for dissemination has been expanded to include dry cereals, horticultural crops (i.e. onion, tomato and pepper), livestock and poultry.

Analysis of agricultural systems using value chain approach can provide suitable and sustainable means of mitigating the effects of climate change. Mainstreaming climate change adaptation where possible mitigation into different activities of WAAPP-Ghana is therefore a viable means of ensuring sustainability of expected yields increases at farmer level and poverty reduction in the medium to long term.

## **Methodology**

Ghana Cooperative Agricultural Producers and marketing Association (AGRIC COOP-GHANA) conducted comprehensive desk review of relevant documents and engage various stakeholders along the agriculture value chain to solicit their view on the effect of climate change on their operations. This will guide the team to ascertain a clear picture of capital structure of WAAPP projects in research institutions and develop further probing questions during the qualitative surveys.

## Plan of action

- Develop human resource capacity (agriculture co-operative) in climate change adaptation including Integrated Pest Management (IPM) approaches to support technology dissemination.
- Build capacity of farmers on routine pest (parasites) and disease management in guinea fowl and small ruminant
- Build capacity of farmers in the use of conservation agriculture practices in root and tuber cropping systems. (Minimum tillage, cover cropping, soil and moisture conservation etc.)
- Train co-operative leaders in handling and managing early warning kits.
- Engage extension service providers assist farmers to plan for adaptation (weather forecasting handsets, soil testing kits, pheromone traps).

- Identify, screen and conserve genetic materials (varieties and breeds) adapted to local climatic stress conditions
- Promote the uptake of integrated cropping systems (crop/trees & crop/livestock /fisheries) systems. Eg: yam production/tree planting

## **Conclusion**

Climatic change and its negative effects have the potential of negatively impacting on the operations of agricultural co-operatives in Ghana. There is therefore the need to address these through mainstreaming adaptation measures into the implementation of agriculture policies and programs.

Ghana has developed a National Climate Change Adaptation strategy and a national Climate Change Policy with strategies. Both documents lay heavy emphasis on adaptation of agriculture and food systems. The Agricoops climate change adaptation Strategy will be in many ways in consistent with the national climate change policy and strategies.

Funds will be raised and allocated to climate change activities in order to mitigate the effect and impact of climate change on the operations of agricultural co-operatives in Ghana.

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