

## CONCEPT NOTE

### DEVELOPMENT OF MINI HYDRO SCHEMES IN RURAL COMMUNITIES IN GHANA

#### POTENTIAL MINI HYDRO SITES IN GHANA

Region	Small Hydro site	Net Head (m)	Installed capacity (KW)
Brong Ahafo	Kokuma Falls	23.0	75
Brong Ahafo	Randall Falls	40.0	160
Brong Ahafo	Fuller Falls	18.0	380
Ashanti	Boumfoum Falls	23.0	150
Eastern	Wurudu Falls	40.0	25
Volta	Wli Falls	2x250.0	1000
Volta	Tsatsadu Falls	43+37.0	320
Ashanti	Barekese water works	12	400
Central	Kwanyaku water works	5	130

#### Irrigation Enhancement

- Using energy generated from the mini hydro scheme to pump water to farm sites.
- This has the advantage of reducing the emission from other fossil fuelled pumps.
- This will reduce labour and operational cost

## BACKGROUND

- Ghana needs to improve its energy generation capacity to meet growing demand.
- Hydro power is the largest renewable source of electricity globally. This accounts for about 19% of power generation.
- Relatively cheaper compared to other power sources.
- Contributes other benefits such as water supply, irrigation enhancement and recreation activities.

#### POTENTIAL PROJECT

- Irrigation Enhancement
- Power for Small Scale Industries
- Power for Recreational Activities
- Power for Social Activities
- Mini hydro for rural electrification

#### Power for Small Scale Industries

- Power generated can be supplied to small and medium enterprises in the communities
- Eg. Power generated from Kwanyaku water works could be used to supplement power use of the company
- Enhance Agro-processing activities

### Power for Recreational Activities

- Tourism: Hotel and hospitality industries
- Art and Craft industries

### Power for Social Activities

- Enhance livelihoods: Job creation
- Improved health care: health post

### Mini hydro for rural electrification

- Mini hydro for rural electrification

### Schedule of Activities

ACTIVITY	TIME							
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Feasibility Study								
Construction phase								
Testing and Commissioning								
Monitoring and Evaluation								

### BUDGET

ACTIVITY	COST (USD)
Feasibility Study	*****
Construction phase	
Testing and Commissioning	
Monitoring and Evaluation	
Sub-Total	
Incidentals (15% of total cost)	
Total	