

COUNTRY: KENYA	SOLAR POWERED IRRIGATION SYSTEMS – COUNTRY CASE STUDY HOLGOJO FARM
	 Geographical Location: Garissa-County Latitude: 0°27′25″ N Longitude: 39°39′30″ E Altitude: 151 m
	 Specific Site Conditions: Climatic condition: Arid Conversion of community land to farm land in order to settle nomads Remote location, not connected to public grid Water is pumped out of nearby Tana River Good water quality and no seasonal shortage
	 Salient Features of Solar-powered Irrigation System: New site development using PV (operational since 10/2014) 19 kWp PV generator on Lorentz tracking system Surface pump is installed on a float Daily mean water output: 2,035 m³/day Pumping Head: 10 m Primary water conveyance by lined open canal, secondary and tertiary level distribution by earthen canal Traditional surface irrigation system (basin irrigation) in place
	System Costs / Financing: Floating raft: 8,794 EUR PV pumping system: 56,952 EUR Irrigation system: 48,158 EUR System cost were 100% subsidised, no farmer contribution
	 Group farming (41 farmers with 0.4 ha each = 16.4 ha) Farmers used to be nomads (no agricultural experience) Banana was selected by agricultural extension workers as main product, because it is easy to handle and allows for parallel camel-breeding
	 First banana harvest expected after 9 months Side products: Melon, Tomato Production is based on low-input practices, no fertilisation despite sensitive demand of banana crop in N and P fertiliser and pH-management of the soil (problem of insufficient agricultural extension) Farmer group finances operational expenses (incl. pump operator) and fixed annual water tax
	 Experiences / Lessons Learnt: Demo-site at Holgojo Farm has proven that PV technology works Foundation of multi-user groups and cooperatives could be a promising model to provide smallholders access to SPIS technology Neighboring famors still operating dissel-driven pumps would like to
	 Neighboring ramers still operating dieser-driven pumps would like to switch to PV as well (funding required) Concept of settling nomads by turning them into part-time farmers is promising Especially women are trained by extension workers to produce and market cash crops, such as tomato and water melon to generate additional income
	 Promoting and Planning Bodies: Project sponsored by Swedish International Development Agency Agency (SIDA) – Total project cost 35 Million KSH (290,000 EUR) Project supported by Ministry of Agriculture and University of Nairobi System integrator: Centre for Alternative Technologies (CAT), Kenya