



SELECTING THE CLEAN ENERGY CHAMPION DISTRICT - UGANDA

“Without access to sustainable energy, there can be no sustainable development”. UN, 2012

AT A GLANCE :

Target :

By 2016, a replicable district model that is climate resilient and powered by efficient harnessing of renewable energy resources to meet all domestic, social and productive energy needs for human development is established in the Albertine Rift

WWF collaborating offices:

- WWF Uganda
- WWF Norway
- WWF Global Climate and Energy Initiative
- WWF Sweden
- WWF Denmark
- WWF China

Local partners:

- Ministry of Energy and Mineral Development (MEMD)
- SNV – Uganda
- Uganda Carbon Bureau (UCB)
- Centre for Renewable Energy and Energy Efficiency – Makerere University (CREEC-MUK)
- Joint Energy and Environment Projects (JEEP)
- Barefoot Power Uganda (BFPU)
- Impact Carbon
- Upenergy
- GIZ
- Access2Innovation

Champion district:

- Kasese

BACKGROUND :

There are approximately **1.3 billion people** who do not have access to **electricity** (around 20% of the global population) and rely on kerosene lamps or candles for lighting and on expensive dry-cell batteries to power radios for communications (IEA, 2011). On the other hand, an estimated **2.7 billion people rely on traditional¹ use of biomass** (wood, straw, charcoal, dung) for cooking and heating (around 40% of the global population). If current trends continue, more people will be without access to modern energy services in 2030 than at present. Without access to modern energy services, achievement of nearly all the millennium development goals remains hard and elusive.

However, access to energy in a world facing the fierce urgency of climate-change must be based on renewable energy resources. A dual focus on increasing access to modern energy services for the world's poorest while ensuring that such access is fueled by clean energy sources is a win-win scenario for development and environment

As a delivery vehicle towards its energy and climate strategy 2012-2016 ; WWF Uganda has established a multi-stakeholder initiative called the « **clean energy champion district concept** ». The champion district concept seeks to demonstrate innovative sustainable solutions towards harnessing renewable energy, increasing energy-efficiency and enabling access to modern energy services for all.

The champion district concept aims at establishing a replicable district model that is climate resilient and powered by efficient harnessing of renewable energy resources to meet all domestic, social and productive energy needs for human development is established in the Albertine Rift. The initiative seeks to demonstrate practical solutions in the developing world context on how the whole world can be powered by 100% renewable energy 2050 – a vision set by the WWF Energy Report (2010). This initiative also responds to the « Sustainable Energy for All by 2030 » an initiative declared by the United Nations Secretary General with 2012 as the launch-pad year.

Current state of energy use in Uganda is such that traditional use of biomass energy meets 93% of the primary energy needs while only 6% of the population has access to electricity. The country's present and foreseeable energy development path does not take full advantage of available renewable energy deployment, energy-efficiency and access to modern energy services for the poor.

The champion district concept seeks to identify a front-runner district (lower sub-national administrative unit) with which WWF and its partners will demonstrate replicable solutions towards access to modern energy services for all based on efficient harnessing of renewable energy resources. It is expected that the lessons drawn from this champion district will be documented and communicated at national and international levels to inspire the UN goal of sustainable energy for all by 2030 and a WWF vision of a world powered by 100% renewable by 2050.

THE CHALLENGE OF SELECTING A CHAMPION DISTRICT:

With scarce development resources in a globally constrained economy, it is usually impossible to work everywhere at the same time, therefore many development practitioners face a challenge of selecting where to start. A place where results can be quickly achieved and quickly scaled up to affect a wider population. This challenge is faced nearly in all aspects of development work ; be it selecting a forest to protect, a water ecosystem to restore, or a place to locate a hospital or a school.

In a situation where the average Ugandan consumes 70kWh per annum, where nearly all districts have less than 10% of their populations connected to an electric powerline and where more than 90% of households depend on traditional use of biomass energy- how do you select a district where to start in resolving energy poverty – who can you choose to work with to motivate others ?

Do you work with a district that has the least connections to electricity and the greatest dependence on traditional biomass ? How do you factor in aspects of poverty and good governance ? If the modern energy services are made available, who will pay for them ? How do you safeguard clean energy investments from the evils of corruption and embezzlement ? How do you secure the dual purpose of safeguarding critical biodiversity targets yet benefiting the poor surrounding communities with modern energy services ? These are some of the questions and challenges we faced when selecting the champion district.

It was recognized that a wrong selection of a potential champion district would be the first step to failure in achieving our goals. We therefore decided that if we are to make the selection, we shall follow a defined strict criteria and that we shall involve other partners such that we get a balanced and objective selection process. Below therefore is a description of the process undertaken to select the champion district.

METHODS OF SELECTING THE CHAMPION DISTRICT :

In selecting the champion district we therefore went through a systematic process which can easily be replicated in selecting pilots for other development initiatives. This process is described chronologically below ;

- i) *To appreciate the challenge ; imagine the following scenarios ;*

You are an football coach and you have been given a once in a lifetime opportunity to choose a team with which to work with to make them a champion of the tournament over the next 5 years. How would you choose ?

- i) *If you choose the champions of the last three consecutive cups, your work will not be valued, because they were champions even without you ?*
- i) *If you choose that are at the bottom of the table, chances are that by the time the 5 years are over, they will only have moved to the middle of the table ?*

Alternatively : You are a surgeon on a battle-field and you are faced with three patients at varying critical degrees of fatality – the first patient is nearly dead and has only a 5% chance of survival ; the second patient has a 50:50 chance of surviving or dying ; the third patient has a 75% chance of surviving and 25% chance of dying. But you only have medicine enough for one patient - the soldiers on the front-lines are eagerly waiting for atleast one of their comrades to emerge alive from your clinic...who do you select to give the medicine ?

A champion can be defined as « a person who has defeated all opponents in a competition ». In the context of energy access, it is assumed that all districts in Uganda are in a competition to achieve access to modern energy services for all in their areas of jurisdiction - a champion district therefore becomes an administrative unit that has overcome (defeated) all barriers and arrived first towards access to modern energy services.

We faced a challenge of identifying who that future champion could be. We therefore developed a set of criteria or checklist upon which we could cross-check to identify traits of a future champion district towards access to modern energy services.

THE CRITERIA AND RATIONALE:

During the selection of the champion district there were two kinds of criteria were developed in choosing the champion district ;

- i) **Criteria for the the desk study** : this involved selection of cross-cutting criteria based on reasonable rationale with respect to energy access work. They included the proportion of households that had access to electricity ; size of the population, proportion of the population living below the poverty line (less than USD\$1 per day), conservation importance ; WWF's current level of involvement and partnerships ; potential as a role model for other districts, presence of priority conservation areas in the district, potential to collaborate with district level stakeholders (Administrative structures, CBOs, CSOs, private sector, religious and cultural institutions)among others. A complete list of criteria together with scores is included in Appendix 2. The data for the criteria was collected through literature review and a stakeholder workshop where each of the key energy actors in Uganda filled-in a questionnaire focusing mainly on the subjective criteria, which were later analysed and intergrated with existing data. The assessment was initially done for 14 districts, and there after 3 priority districts, Arua, Masindi and Kasese were selected. With Kasese scoring best, followed by Masindi and Arua.
- ii) **Criteria for the field verification study** : After the stakeholder consultation a steering committee for the selection of the champion district was selected. The roles of the steering committee and other actors in the champion district are specified in Appendix 1. The local steering committee included ; Centre for Renewable Energy and Energy Conservation (CREEC), Ministry of Energy and Mineral Development (MEMD), SNV Netherlands in Uganda, Joint Energy and Environment Project (JEEP) and Barefoot Power Uganda (BFPU). This team (unfortunately SNV would not join

us), developed a field checklist (see appendix 3) which guided them during the field verification study visit. The team was split into two teams (one team visiting Kasese and another Masindi and Arua). Each team spent at most two days in each district; verifying the findings of the desk study through observation and key informant interviews with different stakeholders including district administration leadership, energy private sector (e.g. hydropower and biomass-to-electricity dealers), cultural leaders, civil society and local communities.

THE FIELD STUDY :

The steering committee team (unfortunately SNV would not join us), developed a field checklist (see appendix 3) which guided them during the field verification study visit. The team split into two sub-teams (one sub-team visiting Kasese and another Masindi and Arua). Each sub-team spent at most two days in each district; verifying the findings of the desk study through observation and key informant interviews with different stakeholders including district administration leadership, energy private sector (e.g. hydropower and biomass-to-electricity dealers), cultural leaders, civil society and local communities.

On return from the field, the two teams shared findings in a half-day workshop during which, the teams gave scores based on agreed criteria. The results from these scores are presented in Appendix 4.

THE FEEDBACK AND DEBATE :

Upon presenting the findings from the field, the members debated and shared notes on individual experience until finally they reached a compromise on the champion clean energy district informed by both the results of the desk-study and the field study. The clean energy champion district selected is now, Kasese District. However, the team recommended that Arua District should be considered as an understudy (a substitute) for possible next interventions.

KASESE DISTRICT - THE CLEAN ENERGY CHAMPION – KEY ATTRIBUTES:

" To achieve it, you have to KNOW it in your HEAD and BELIEVE it in your HEART."

L. Schmitt --- QLD, Australia (2005)

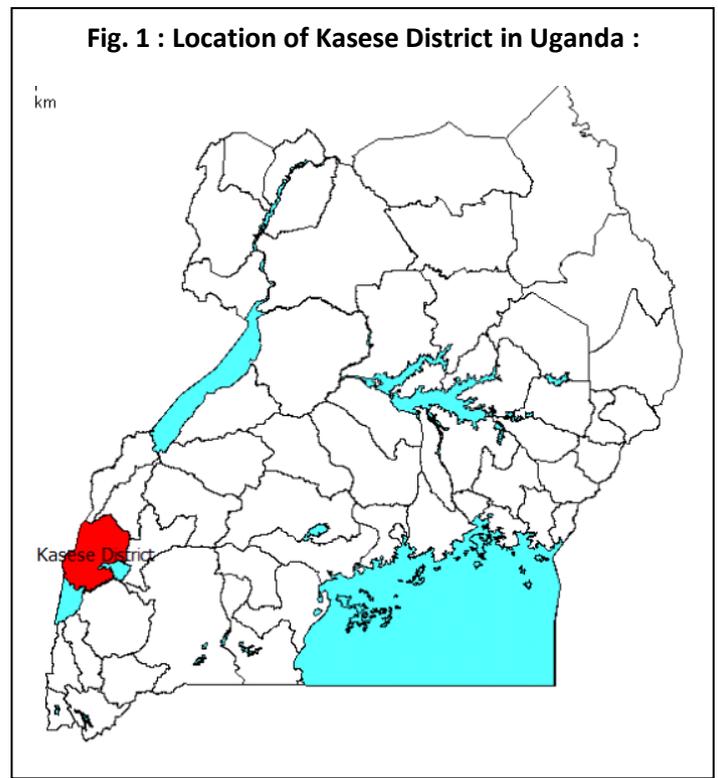
Kasese District is located astride the Equator, in South Western Uganda on the border of Uganda with the Democratic Republic of Congo (DRC). By 2002, the district had a population of 523,033 persons (2012 estimates is approximately 711,325 persons). Kasese district headquarters are located at Rukoki along the Kasese-Fort Portal highway. The district has two counties of Bukonzo and Busongora, 4 town councils, 19 sub counties, 115 parishes and 696 villages known as L.C1s.

Leadership: the district has a political and a technical leadership. The technical leadership is headed by **Mr. Kanyesigye William**, the Chief Administrative Officer (CAO) and the chief Executive of the district. He is the accounting officer and the head of the civil service of the district. Reporting to the CAO are a team of technical officers on various aspects including; Environment, community development, health among others. The district is represented at the national level through five elected members of parliament. The political leadership in the district

is headed by **Lt. Col. (Rtd) Dula Mawa Muhindo**, the Local Council 5, District Chairman and the political head in Kasese district. He was elected in a popular vote in 2011 and subscribes to the ruling National Resistance Movement (NRM) political party.

State of electrification: Some of the rural communities of Kasese District have been connected to the electricity grid under the on-going rural electrification programme. Kasese District made a contribution out of their Local Government Development Plan allocation of about UGX 400 million to partner with Kilembe Investment Limited and in return, it attracted a grant of UGX 3 billion from the World Bank. For now phase one line has been pulled to Kisinga, Munkunyu, Nyakiyumbu, Bwera and Mpondwe-Lhubiriha Town council areas. There is a strong political and technical will to increase the electrification levels in the district and, at 7.6% of the population connected to the national grid (2002), the district is performing better than nearly all rural districts in Uganda. Even then, 7.6% electrification rate is still very low.

Climate change: The status of the snow cover on the snow-capped Mt. Rwenzori indicates worrying trends in climate change. It is believed that if climatic trends continue unchecked, glaciers on the Rwenzoris would disappear within 20 years, placing the lives of millions of people and associated ecological systems that depend on this unique environment in danger.

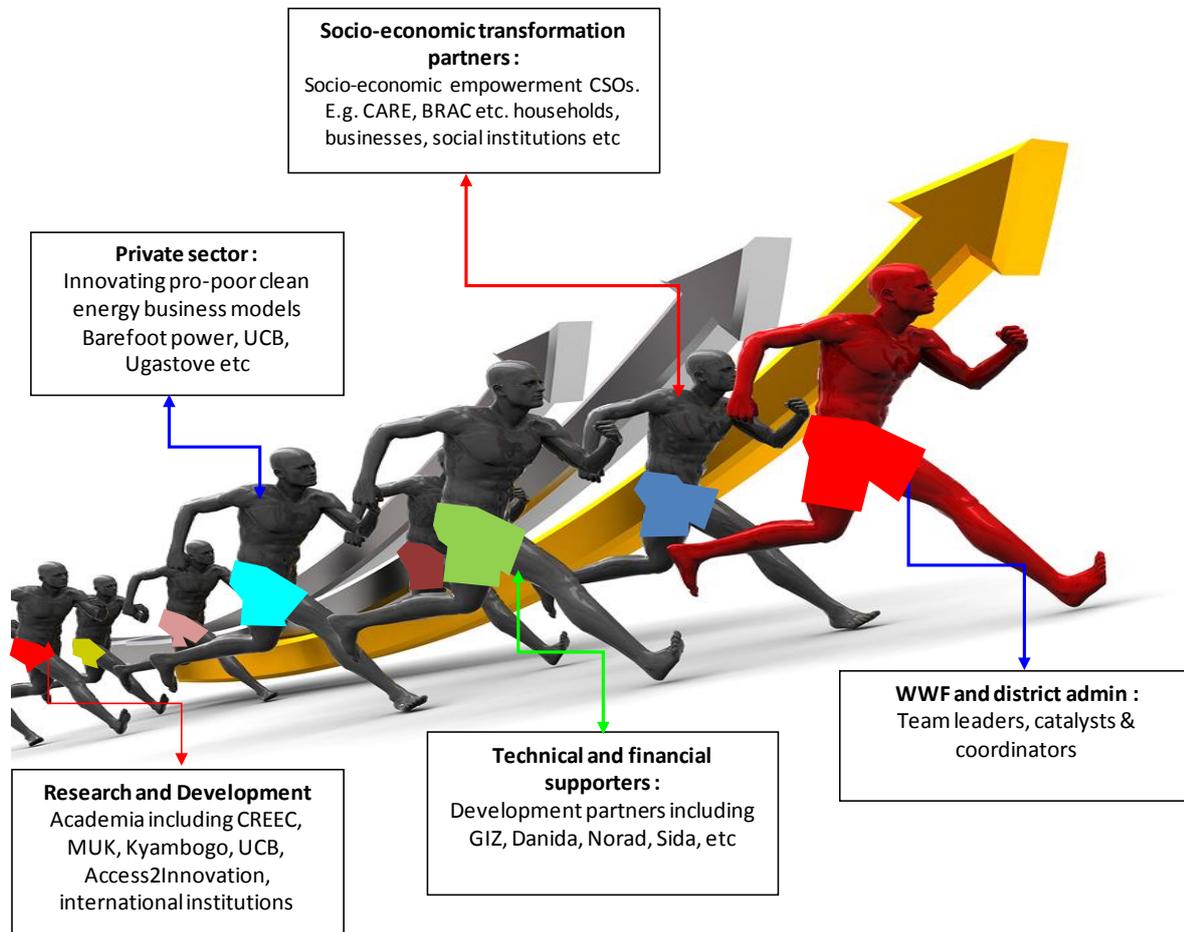


CONCLUSION :

Kasese's main selling points are the over four small-hydropower stations; a district administration having a demonstrated commitment towards access to modern energy services for all and overall human development and proximity to critical biodiversity conservation sites notably the snow-capped Mt. Rwenzori (World Heritage Site) and Queen Elizabeth National Park (United Nations Man and Biosphere reserve).

The district boasts of a vibrant peasant and industrial economy and perhaps more importantly the human settlements are pressed between two important conservation areas – Queen Elizabeth National Park (a UN Biosphere Reserve) and Mt. Rwenzori National Park (a World Heritage Site) whose snow capped peaks are threatened with complete melting due to climate change). This makes Kasese quite a potential champion for effectively demonstrating innovative pathways towards establishing the necessary harmony between humans and nature in energy utilization.

APPENDIX 1: DRIVING THE ENERGY ACCESS AGENDA IN THE PILOT DISTRICT: ROLES OF THE TEAM.



APPENDIX 2: RESULTS OF THE DESK STUDY (INCLUDING QUANTITATIVE AND QUALITATIVE SCORES)

Criteria	Districts			Rationale
	Arua	Masindi	Kasese	
Current level of (basic) energy access - electricity	1	4	7.6	The higher the level of access the better.
Current level of (basic) energy access - biomass	99	97.8	97	This was not scored as nearly all districts were the same.
Current RE production/potential	5.9	10.5 ¹	25	the higher the production potential the better (1=best, 3=worst)
UCO current involvement and partnerships	3	2	1	The higher the level of WWF involvement the better the score(1=best, 3=worst)
Potential as a role model for other districts	3	2	1	Subjective score achieved by stakeholder consultation (1=best, 3=worst)
Linkages to conservation priority areas (including forest program target areas)	3	2	1	Subjective score achieved by stakeholder consultation and presence of high value conservation areas (1=best, 3=worst)
Potentials to collaborate with district level stakeholders (Administrative structures, CBOs, CSOs, private sector, religious and cultural institutions)	3	2	1	Subjective score achieved by stakeholder consultation (1=best, 3=worst)
Potential for collaboration with other national level stakeholders (research, development NGOs, media etc)	3	2	1	Subjective score achieved by stakeholder consultation (1=best, 3=worst)
Logistical challenges in implementation				
Existing road network in district				
Distance from Kampala	504	217	418	The shorter the distance the better
Scope		3	5	
Total land area (4)	5,349	7,336	2,906	The smaller the area size the better
Population size (6)	833,900	396,127	523,033	The smaller the population the better
Poverty levels	54	42	48	The lower the poverty levels the better
Total score	2	3	1	All qualitative and quantitative scores were standardized to a single scale (1=best, 3=worst) and the final score awarded for the desk study.

¹ Figures from Kinyara Sugar Works

APPENDIX 3: STEERING COMMITTEE MEMBERS :

Steering committee members were nominated as follows ;

1. CREEC- Mary Suzan Abbo
2. MEMD- Edward Baleke
3. SNV- Patience Turyareeba
4. JEEP- Ruth N. Kiwanuka
5. BAREFOOT- Frank Neil Yiga

Other members consulted :

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APPENDIX 4: DISTRICT SCORES FROM FIELD VISIT OBSERVATIONS AND KEY INFORMANT INTERVIEWS:

Criteria	Score			
	Total possible mark	Kasese	Masindi	Arua
District Leadership	30	24	18	24
Enabling Environment and Infrastructure	20	16	10	18
Private sector	15	14	9	14
Existing RE resources	15	14	12	12
CSOs	10	8	6	9
Coordination	5	5	5	5
Others	5	5	3.5	4
Total	100	85	64	85