

# Local Sustainable Solutions-East Africa

Luganda

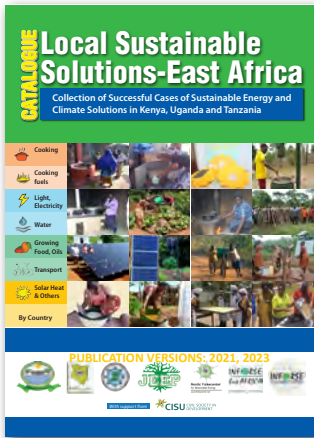
Enkola eya bulijjo enetusobozesa okugonjola ebizibu ebisomooza obuvanjuba bwa Afrika (East Africa) nga byekusa ku mbeera y'obudde bw'ensi mu Kenya, Uganda ne Tanzania



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## Akatabo kano kanyonyola engeri kinana (80+) n'emusoby o ez'enkola eya bulijjo mu buvanjuba bwa Afrika (East Africa).

**Ekitabo kino kiraga mu bufunze amaanyi agawangaala n'embeera y'obudde mu buvanjuba bwa Afrika n'addala mu Kenya, Uganda ne Tanzania.** Akatabo kano kasangibwa ku mutimbagano era n'emutelekero elya yintaneeti era kasoboka okukubibwa munkola eya PDF. Kkopi z'ekitabo kino eky'empapula 150 ezikubiddwa mu kyapa nazo zifulumiziddwa. Waliyo kkopi y'ekitabo kino ku yintaneeti nga eno buli kiseera eyongerwamu ebinnonoggo.

**Ekgendererwa** ky'eterekeri lino kwe kwongera kumanyisa abantu ku bikozesebwa ebitakosa butonde bwa nsi, nga tebilina buzibu ku oyo abikozesa, bikola bulungi nnyo ate nga bikendeza ne ku nsaasaanya y'ensimbi. Ekisingira ddala nti ebintu bino tusobola okubifuna mu bitundu mwe tuwangaalira.

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### Okuzibikira omuwatwa mu kumanya:

Etterekelo lino lilaga eby'okulabirako ebigezeseddwa mu bitundu mwe tuwangaalira era nga bikakasiddwa nti bisobola okugonjoola ebizibu eby'omu kitundu ebinyinza okuyamba okukola ku kusomoozebwa okukwata ku maanyi, amazzi, emmere mu buvanjuba bwa Afrika (East Africa), mu ngeri ennungi eri obutonde bw'ensi era nga si zabbeeyi.



Ebikozesebwa bino bikendeza ku nkozesa y'obutonde, ssente, obudde, era bitusobozesa okubeera obulungi. Okugeza, ebyooto ebikendeza ku nku ezikozesebwa, bifulumya omukka motono ddala ate nga n'obulabe obwokwobwa bukendezeddwa. Waliwo n'omukisa gw'abantu abamu okwekoleramu ssente.

Ekyokulabirako, waliwo ebyuma ebikaza ebibala nga bikozesa amasannyalaze g'enjuba, ebiyumba ebiyitibwa "green house" n'ebiyuma ebikozesebwa mu maduuka nga bikozesa amasannyalaze agava kunjuba wamu n'amakolero (workshops). Enkola zino ezimu zizimanyiddwa bulungi mu bitundu ebimu, ate endala tezirina biwandiiko oba tezimanyiddwa.

### Endagiriro y'obwananyini

Enkola eya bulijjo enetusobozesa okugonjola ebizibu ebisomooza obuvanjuba bwa Afrika (East Africa) nga byekusa ku mbeera y'obudde bw'ensi mu kitundu ky'obuvanjuba bwa Afrika (East Africa)

Akatabo kakubiddwa emirundi gino wammanga: Omulundi ogusooka (1<sup>st</sup> Edition) mu 2021 nga kaweza empapula 140, ISBN 978-87-970130-5-2 Omulundi ogwokubiri (2<sup>nd</sup> Edition) mu 2023 nga kaweza empapula 148, ISBN 978-87-970130-6-9

Kasangibwa ku kuyintaneetiku kibanja kino: [localsolutions.inforse.org](http://localsolutions.inforse.org) Ebifaananyi ebiri mu katabo kano bisimbilizibwa mu tterekeero eryo (waggulu). Omuntu yenna waddebe okukozesa obubaka obuli mu katabo kano, kasita ajuliza ensimbuko yabwo (source).

Akatabo kano kakolebwa / kawandiikibwa nga ekimu ku bikoledwa pulojeketi ya "East African Civil Society for Sustainable Energy & Climate Action" (EASE & CA) project mu 2019 – 23, nga eno yetabamu ebibiina by'obwannakayewa ebyegattira mu kitongole ky'ensi yonna ekikola ku masannyalaze agabuwangaazi (INFORSE) nga biwagirwa ekibiina kya Civil Society in Development (CISU), Denmark.

Okukung'aanya engeri ezisoba mu kinnana (80+) mu katabo kano kivudde ku mirimu egy'enjawulo egikoleddwa ebibiina bino: Uganda Coalition for sustainable Development (UCSD) ne Joint Energy and Environment Projects (JEEP) mu Uganda, Tatedo – Sustainable Energy Services Organisation mu Tanzania, Sustainable Energy Services Organisation mu Tanzania, Suswatch Kenya ne Nordic Folkecenter for Renewable Energy (NFRE) mu Denmark, wamu ne INFORSE, INFORSE – Europe ne INFORSE EAST AFRICA.

**Mu tterebero, mulimu engeri za mitendera musanvu (7), nga zino ate zigabanyizibwaamu ebika ebitonotono, era ne bisunsulwa okusenziira ku mawanga.**



**Okufumba:** Okulongoosa mu sitoovu ezikola obulungi nga kikendeza ku nku ezikozesebwa mu maka n’amatendekero ng’amasomero, ebyuma ebifumba nga bikozesa amasannyalaze g’enjuba; ebyuma ebifumba nga bikozesa gaasi.



**Ebifumbisibwa (Cooking Fuels):** Ebiyungu ebirongooseddwa nga bikoleddwa mu matafaali.



**Ekitangaala, amasannyalaze n’amazzi :** Amataala agakozesa amaanyi g’enjuba wamu n’ebyuma byomukitundu ebikola amasannyalaze, ageyambisibwa okulaba ttivi, okukozesa amasimu, mumakolero g’ebintu ebitali bimu okukozesebwa okusindika amazzi okuva ku ppampu z’enzizi ezitali zzimu nga bafukirira ebimera.



**Okulima Emmere:** Okulima ensuku, ez’obutonde ezigenda ku katale; n’okutundako; n’ebiva mu miti.



**Entambula:** Obugaali obukozesebwa okugenda ku ssomero, ku mirimu, okutwala ebintu migugu; mmotoka ez’amasanyalaze eza nnamuziga n’ebisololo.



**Ebbugumu ly’enjuba n’ebirala:** Ebyuma ebifumba amazzi ag’okunaaba awaka n’emu ziwooteri nga bikozesa amaanyi g’enjuba, ebyuma ebikaza emmere nga bikozesa amaanyi g’enjuba.

Okukozesa enkola zino kikendezeza ku bwetaavu bw’enku n’amafuta. Okugeza, ebyooto ebirongosemu bikozesa enku ntono, ate n’amataala agakozesa amaanyi g’enjuba (efficient bulbs) geetaaga amasannyalaze matono ddala bwogerageranya n’agabulijjo. Ebikozesebwa bino kaakati weebiri mu buli kitundu kya nsi olwa tekinologiya eyoyongedde. Buli kikozesebwa kilagibwa mu bifaananyi bisatu era ne kinnyonyolwako ku migaso gyakyo n’obuzibu omuntu bw’ayinza okusanga nga azikozesa, ne wasobola okufuna okumanya ebisingawo ebikikwatako oba ayagadde (laba akabokisi).



Etterebero lino litukubiriza okuva mu kwogera obwozezi ku nsonga zino ezitusomooza, tutandike okubaako kyetukola. Tulina essuubi nti omuntu ajja kusobola okufuna okumanyisibwa okumala ku buli kye yandyetaaze okumanya, era nti etterebero lino lijja kuwaliriza buli muntu okusalawo okukozesa ebikozesebwa bino okugonjoola

ebizibu ebitusomooza okukuma obutonde n’okulabilira embeera y’obudde, wamu n’okulongoosa embeera z’abantu n’ebutonde okutwaliza awamu.

*Kino kijja kuyambako okutereza mu mbeera z’abantu. “Tukolerere embeera ennungi, okulongoosa embeera z’abantu, okumalawo obwavu n’okukomya enkyukakyuka y’obudde embi”.*



Ebikozesebwa bino y’emu ku ngeri y’okutuuka ku biruubirirwa **by’ekibiina ky’amawanga amagatte ebiberako** eby’enkulaakulana ey’olubeerera (SDGs), n’addala SDG 13 (okukola ku mbeera y’obudde), SDG 7 (amasannyalaze), SDG 1 (obwavu), SDG5 (ekikula ky’abantu), SDG 6 (Amazzi), SDG 2 (enjala, emmere) n’okussa mu nkola ebyo byonna ebyasalwawo okukolebwa (NDCs)

mu ggwanga, n’eby’enteekateeka z’okukendeza ku mukka ogw’bulabe ogufulumizibwa nga tukulakulana (LEDs) wansi w’endagaano ya Paris, wamu n’ebikolebwa mu ggwanga okulaba nga tufaayo okukozesa amasannyalaze n’amafuta wamu n’ebifumbisibwa ebiyonjo eri buli muntu SDG 7 (amasannyalaze amayonjo), omuli n’enkola z’amasannyalaze agakekkereza ate nga gabuwangaazi (Se4 ALL)

Ebiwandiiko ku buli kikozesebwa mulimu bino wammanga. Ebiifaananyi bisatu (3)

Okunyonyolwa:

- Ebirungi ebiri mu kugonjoola ensonga eno
- Okukekkereza (buli lunaku / okufulumya)
- Ebisale (mu ssente ne mu budde bwaffe oba mu kuzimba wekwetaagisa)
- Okuddaabiriza okwetaagisa
- Ebikozesebwa ebyetagisa
- Obuzibu omuntu bwayinza okusanga mu kuzozesa ebikozesebwa bino
- Wa era ayinza otya okugiofuna oba okugikola?
- Obukugu ki obwetaagisa, okufulumya, okuteeka, okulabirira, okukozesa.
- Ebikosa embeera y’obudde
- Lwaki kya buwanguzi?
- Nkola ki ey’ebyensimbi, bukodyo ki obuyambye okusaasanya enkola eno?
- Ensonda enz’enjwulo ezikuyamba okumanya ebisingawo



# Okufumba



## Ebifo eby'okufumba eby'enku mu maka ebirongooseddwa

- Ekyooto ky'enku mu maka eya akoo V5 (Tanzania)
- Rocket Lorena - Ekyooto ky'enku ey'entamu ebbiri (Uganda)
- Ekyooto ky'enku y'emizinga eya caritas, kitu (Kenya)
- Ekyooto ky'enku nga ya ntamu emu (Uganda)
- Ekyooto ky'enku ekya upesi aniga – Ebifumba ebikekkereza amaanyi (Kenya)

## Essigiri ennongoseemu eza waka ezifumbisa amanda

- Ssigiri y'amanda mu maka ekola obulungi / SeTa-Mkaa (Tanzania)
- Ekyuma ekirongooseddwa ekifumbisa amanda (ICBO) (Tanzania)
- Jiko Boro (Tanzania) & okwokya jikokoa (Kenya)

## Ebyooto ebirongoseemu nga bikozesa enku n'amanda

- Jiko tosha ne wisdom stove (Malaika jiko, MJ/M2) (Kenya)
- Ssigiri ekekereza amanda ga KIDT briquettes (Tanzania)





# Okufumba



**Ebyooto eby'okufumba n'enku eby'ebitongole oba eby'olukale** (nga amasomero, amalwaaliro)

- Ebyooto by'enku ebirongooseddwamu (SETA-IIFC) (Tanzania)
- Ebyooto ebirongooseddwa eby'ebitongole oba eby'olukale (ICS) eza (JEEP) ku masomero (Uganda).

**Okufumbisa ggasi akoleddwa munakavundira**

- Ekyuma ekikozesa ggaasi ekya blue frame (Kenya)
- Ekyuma kya fixed dome biogas (Tanzania) ne (Uganda)
- Biogas afumba ku masomero (Uganda)

**Okufumbisa ebugumu ly'amanyi g'enjuba**

- Bokisi ezibugumya
- Okufumbisa amasannyalaze nga tukozeza 'Pressure Cookers' (E-Pressure cookers)
- Ekisero ekifumba nga temulimu muliro (Hay box) (Uganda, Kenya)
- Ebyuma ebifumbisa amanyi g'enjuba (Haines-Copenhagen) (Kenya)
- Oven ya bokisi (ULOG) (Kenya, Uganda)
- Ebyuma ebifumba nga bikoseza masannyalaze ne puleesa (Tanzania)





# Ebifumbisibwa (Cooking Fuels)



Enkola y'akwokya amanda ennongoseemu

- Okwokya amanda mu tanulu ennongoseemu (IBEK) (Tanzania)
- Ekyuma ekiyitibwa portable (Kenya)

**Amanda ga briquettes (agabumbibwa)**

- Agabumbibwa okuva mu lusenyente, empumbu n'ebirala (Uganda)
- Ebikuta bya muwogo n'ebyamabanda (Tanzania)
- Ebikuta by'omuceedere ebibumbiddwa nga Amanda (Tanzania)

**Enku okuva ku miti gyetusimbye (Uganda)**





# Ekitangaala, Amasannyalaze



## Ettaala ezikozesa amanyi g'enjuba (Uganda)

- Ettaala ezikozesa amanyi g'enjuba nga kwogasse n'okucaajinga essimu nga ziva mu SunKing ne D.Light (Kenya, Uganda, Tanzania)

## Enkola ya masannyalaze g'enjuba nga gakozezebwa awaka

- Essomero lya Gaitheri Secondary School akasolya ka Solar (Kenya)
- M-Kopa 600 solar system (Kenya)
- Ffiriigi ekozesa amasannyalaze ga solar (Uganda)
- Enkozesa y'amasannyalaze gamanyi g'enjuba mu maka (Tanzania)
- Tekinologiya wa Sunking akozesebwa okuwa ekitangaala, okucaajinga nga kwotadde nokulaba telefayina.

## Enkola ya masannyalaze g'enjuba okukozesebwa ku kyalo (Mini-grids)





# Amazzi



## Okulembeka n'okukozesa amazzi g'enkuba

- Okulembeka n'okukozesa amazzi g'enkuba okuva ku nnyumba (Uganda)
- Ekidiba ky'amazzi agakulukuta (Uganda)

## Enzizi z'amazzi ne pampu ezirongooseddwa

- Enzizi ezitali nnene (Uganda)
- Enzizi ezitali nnene ezikozesebwa amasannyalase (Uganda)
- Pampu y'amazzi ekola ku masannyalaze g'enjuba (Kenya)

## Okukekkereza amazzi

- Okufukirira emiyembe (Tanzania) nga bakoze amasannyalaze n'ebiyuma ebifukirira.
- Ennima y'okufukirira ebimera (Tanzania)







# Okulima Emmere/Butto



## Okukola ensuku z'omuffumbiro

- Okulimira mu bisawo (Kenya)
- Obulimiro obutono obw'enva n'ebirala (Uganda)
- Okulima emmere nga bakozesa amazzi amacaafu (Uganda)

## Enva endirwa e'zobutonde ezigenda mu katale

- Mlango Farm (Kenya)

## Ebintu ebiva mu miti

- Enkola y'okulima ebibira (Uganda)
- Okukola ssabuuuni n'ebizigo okuva mu mafuta g'emiti (Uganda)





# Ebbugumu ly'enjuba n'ebirala



**Ebyuma ebikozesebwa ewaka okufumba amazzi nga bikozeza ma sannyalaze g'enjuba (Kenya)**

**Ebyuma ebikaza emmere nga enva endiirwa, ebibala, ebyenyanja n'ebilala**

- Ebitala by'amakolero (Tanzania)
- Ekyuma ekya Grekkon Limited (Kenya)
- Ekyuma kyamasanyalaze g'enjuba (JEEP) (Uganda)
- Ekyuma kya sparky charcoal (Uganda)





# Entambula



## Obugaali

- Obugaali (Uganda) (Tanzania)
- Obugaali (Kenya)

## Obugaali ne pikipiki ezikozesa bbaatule

- Emmotoka z'amasannyalaze eza nnamuziga essatu (3) (Tanzania)
- Pikipiki ezikozesa bbaatule (Uganda, Kenya)

## Ebisolo

- Ente ezikozesebwa okwetikka ebintu (Uganda)
- Endogoyi (Kenya)





**80+**

**Local Sustainable Solutions in East Africa**

[www.localsolutions.inforse.org](http://www.localsolutions.inforse.org)

**GLOBAL/REGIONAL:**

**INFORSE - International Network for Sustainable Energy**  
**INFORSE-East Africa c/o TaTEDO, Tanzania**  
 Web: [www.inforse.org](http://www.inforse.org) [www.inforse.org/africa](http://www.inforse.org/africa),  
[www.inforse.org/africa/EASE.htm](http://www.inforse.org/africa/EASE.htm)

**TANZANIA:**

**TaTEDO - Tanzania Sustainable Energy Services Organization**  
 Web: [www.tatedo.or.tz](http://www.tatedo.or.tz)

**UGANDA:**

**UCSD - Uganda Coalition for Sustainable Development**  
 Web: [www.ugandacoalition.or.ug](http://www.ugandacoalition.or.ug)  
**JEEP - Joint Energy and Environment Projects**  
 Web: [www.jeepfolkecenter.org](http://www.jeepfolkecenter.org)

**KENYA:**

**SusWatch - Sustainable Environmental Development Watch**  
 Web: [www.suswatchkenya.org](http://www.suswatchkenya.org)

**DENMARK:**

**Nordic Folkecenter for Renewable Energy**  
 Web: [www.folkecenter.net](http://www.folkecenter.net)  
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