

# Green Energy for Education

- LED Lantern Charging System(LLCS) -



**Kens.co**

Kawaguchi Energy Natural Solution Company

# PROFILE : NOBUHIRO KAWAGUCHI

Nobuhiro Kawaguchi was the 3<sup>rd</sup> generation of his family who acted as a president of Kawaguchi Steel Industry Co., Ltd., a roof design & construction company found in 1930. After he joined, he designed lightweight solar panels & obtained a patent for a special mount. He is promoting the renewable energy in Japan & the electrification of rural areas in developing countries such as Africa. **He established Kens.Co;Ltd in 2013 as well as GOOD ON ROOFS in 2018 to expand his idea in Africa. His business model was highly evaluated and won several recognized competition in Japan. That is the spotlight as a company which will helps to achieve SDGs for Africa. He did solar project in more than 10 African countries including UNDP projects.** Most of his project was aim to provide solar power to non electrified education infrastructures in Africa.



## Managing Director of :

- Kawaguchi Steel Industry Co; Ltd, Japan
- **Kens.Co; Ltd, Japan (Project Management Unit)**
- GOOD ON ROOFS BENIN ( Operation Unit in Africa)
- GOOD ON ROOFS
- Creative Response – Social Innovation School Program Advisor
- Former President – Tosu Junior Chamber Industries (JCI) 2004
- Chairman – Saga Block Council, Japan Junior Chamber - 2005



- 2019 Kyushu Future Award - Grand Prix Winner "GOOD ON ROOFS"
- 2019 " Grand Prix Winner of "Small Giants Award 2019-2020" By Forbes Japan

# CONCEPT : LED LANTERN CHARGING SYSTEM

## AT SCHOOL



**A**

Led lantern will charge while they are studying at school.

**B**

After School, LED lantern can bring to their house

**C**

Purpose : Study, charging mobile, Outside toilet, etc

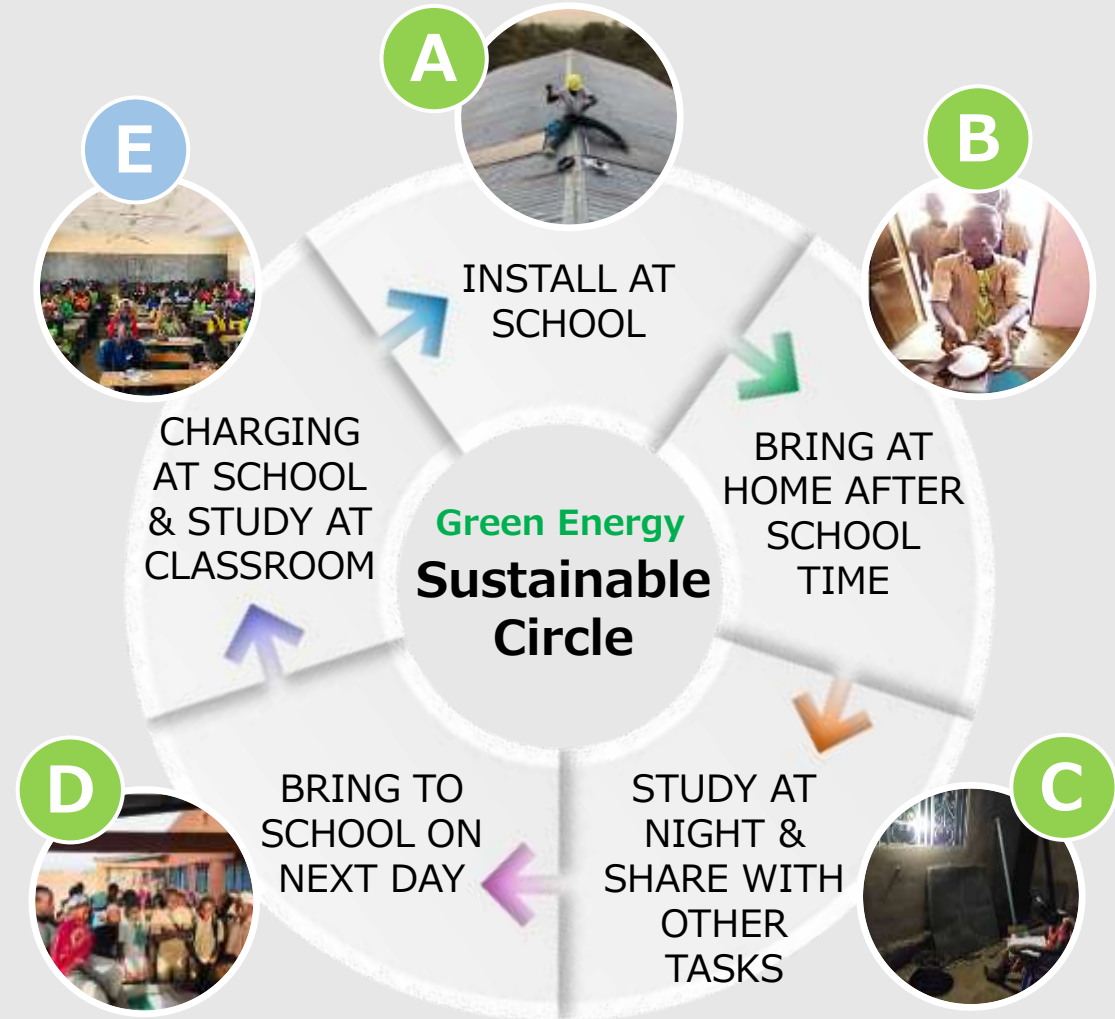
**D**

Next day, deposit to school staff & go for study at classroom.

## AT HOME



## Sustainable Circle of our business concept



## A unique WIN/WIN Model -- "Education x Green Energy"

1. LED Lantern charging system with solar panels will be install at school where the school site will be rented free of charge.
2. Lantern will charge at school. After school, students take lanterns to home for study at night & charging their phone & share with others
3. You can be able to sell **50 FCFA** (approx.11 yen) per lantern for rental & recharging fee from per students.

**A. BENIN pilot project** : Ministry of primary education visited lantern project site and meeting with beneficiaries  
 Venue: Jonkore Elementary School AB, Jonkore Village, Sakete City, Plateau Prefecture, Republic of Benin

### Village Chief

There is high demand for LED lantern in our village

Parents are now more interested to send their child to school

50 cfa is perfect rate comparing to charging rate at shop

Children can now pursue higher education from our village

### Principal

Academic performance of students declined when we stopped lending led lantern

Without LED lantern, students studying under streetlight at night. Now they can study at home.

Previous year Junior high school exam pass rate was 80%. This year 100%

Rate of homework done by students is increasing a lot. Also, teachers' participation rate has increased.

### PTA

LED lantern lending fees are cheaper than kerosene. Children`s interest to go to school has increased.

Now children is safe without using kerosene oil.

50 cfa fees is convenient than 100 cfa

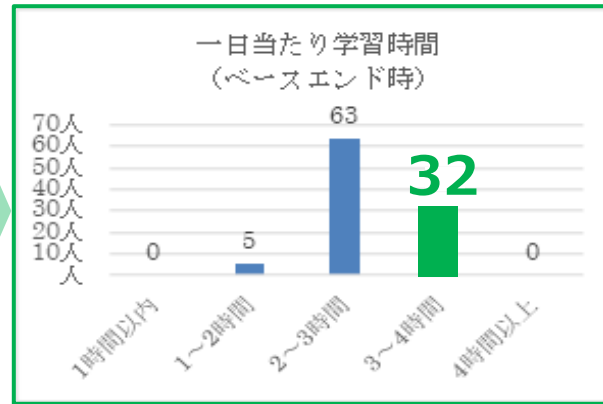
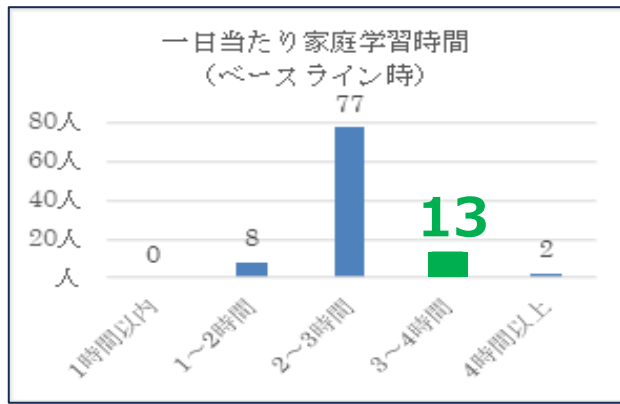
Other siblings can share lantern at night for study



Results of interviews with village chiefs, principals, PTAs

# SOCIAL IMPACT WITH LLCS

Increasing the length of studying time ( 3 to 4 hours)  
like double from **13** to **32** students.

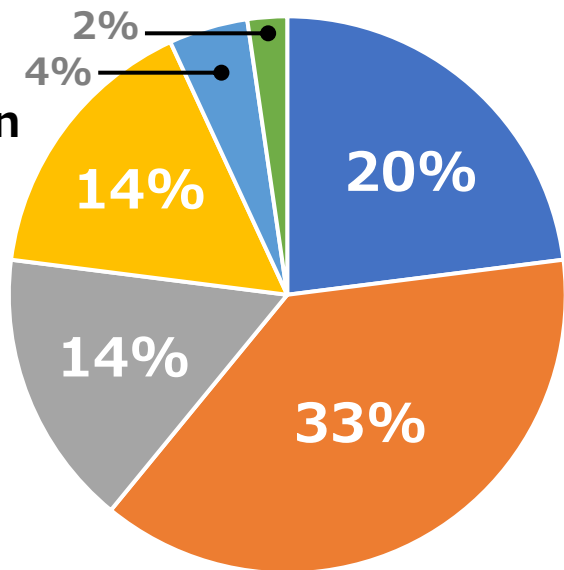


Without LED lantern

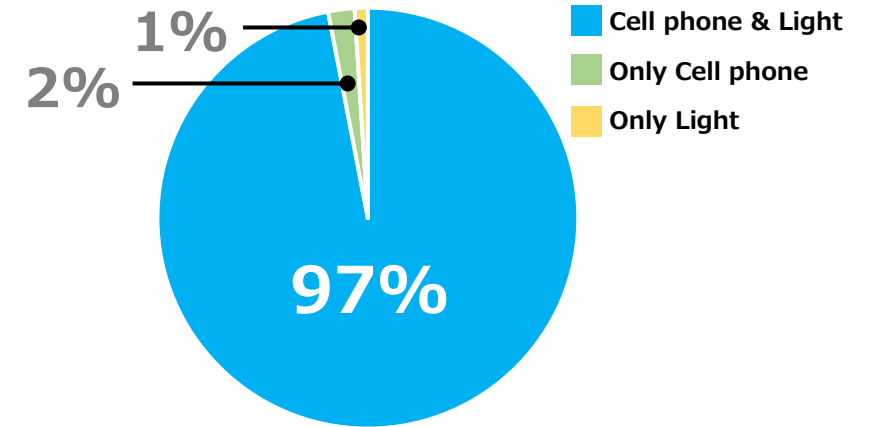
With LED lantern

## Higher Education Enrollment Rate

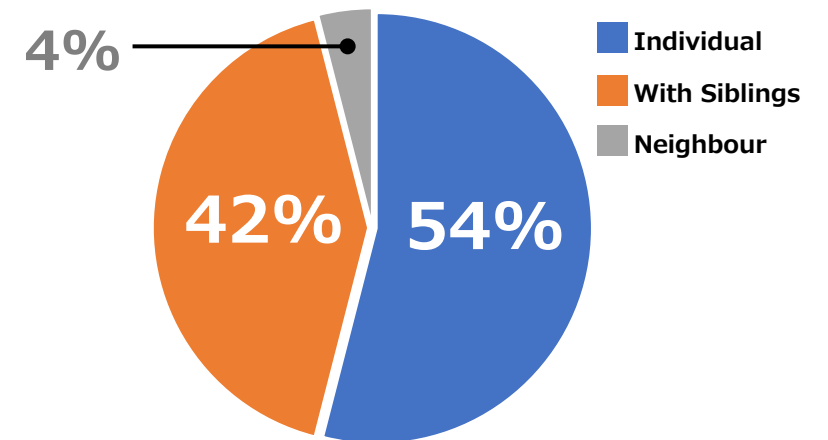
- South Africa
- Egypt
- Ghana
- Nigeria
- Tanzania
- Niger



## Types of using by the participates



## Sharing categories by participates



# POTENTIAL BUSINESS GROWTH

We aim to take advantage of business opportunities that meets ordinary households needs because of economic growth

