THE SOLAR LIGHT LIBRARY PROJECT MANUAL

Everything you need to know to run a successful Solar Light Library at your school

Photo: BookAidInternational/SolarAid/Chris Gagnon.

SolarLight Libraries

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1.

INTRODUCTION

Your school has been chosen to benefit from a Solar Light Library which provides your students with the opportunity to borrow a solar light from the school for short periods so that they can study during the evenings. The ultimate objective of the Solar Light Library is to help create opportunities for students to study, improve their education and exam results.

The solar lights are the property of your school and must only be used at the school or by students who have been approved to borrow a light for evening study at home. The Light Library project is being delivered by:

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The lights in this Library have been specially designed to work for many years. The lights can be recharged by a solar panel and/or solar system, which converts sunlight into electricity. The lights have their own rechargeable battery which stores this electricity, which powers the lights during the evening. It is the responsibility of the school to manage and maintain the Library so that the solar lights are made available for many years.

This manual provides instructions on how the Library should be managed and all the resources your school needs to run the Library. It also explains how solar lights should be used and maintained.

2.

HOW THE LIBRARY WORKS

The Solar Light Library has been designed to work in a similar way to a book library. This means:

- A Librarian runs the library
- Solar lights are stored in safe, secure, place within the school and made available for students to borrow
- Students may borrow the solar lights in exchange for a token payment of [Amount here – e.g. One US cent] per night. This payment should go into a fund which which should be used run the Library.

We recommend that your school appoints a committee to oversee the management of the Library and a Librarian is appointed by the School Management Committee to oversee its day to day operations.

The lights are intended for use by students and in particular by students who come from homes which do not already benefit from electric or solar lighting. Teachers may also us lights at school for lesson-planning after dark. Priority should always be given to students.

3.

THE SCHOOL LIGHT LIBRARY MANAGEMENT COMMITTEE

The School Management Committee should, where appropriate, include the headmaster/ teachers, as well as a representative of the parent teachers association.

The School Management Committee should be formed to oversee the general management of the Library and should appoint a Librarian to oversee the day to day operations of the Library.

4.

THE LIBRARIAN 'LIGHTBRARIAN' – ROLES AND RESPONSIBILITIES

The Librarian is responsible for managing the day to day operations of the Library. This means they must:

- Oversee registration of students into the Library. (Note: A parent should sign to approve registration)
- Keep a record of the number of solar lights in the Library
- Sign lights in and out of the Library using the Solar Light Library register.
- Manage any exchange of money in accordance with school regulations and as directed by the School Management Committee. Funds generated must remain available for use by the school to run and maintain the Library. (This includes replacing solar lights with new ones).
- Make sure that solar lights are in full working order at all times – this includes recharging the lights fully each time they are returned to the school.
- Immediately report any problems to the School committee, including faulty solar lights, misuse of lights, non-return of lights.

5.

OPENING AND OPERATING THE LIBRARY

Once the Librarian has been appointed, the following steps should be followed to launch the Library:

1. The School Committee must agree where lights will be stored. This must be a safe, secure place which protects the lights from theft and water.
2. The Librarian must read this manual, learn how to run the Library and learn how to use, charge and maintain the solar lights.
3. The Librarian must agree where the solar panels and lights will be placed in the school grounds to be recharged.
4. The school headmaster should introduce the Light Library to students in a general assembly, explaining that students who want to borrow a solar light must ask their parent/guardian to register with the Librarian. Students will be given a letter to take home to their parent/guardian to explain the project.
5. The Librarian will manage registration of parents/guardians to give permission for the child to join the Library. This will require going over the rules of the Library to ensure the parent/guardian is willing to comply.
6. On registration, the student will be allocated a unique identification number which will remain their Library number and may not be transferred to other students.
7. On receiving their identification number, the student will be able to borrow a solar light for an agreed amount of time.
8. The School Management Committee should agree what penalty is given for late returns.
9. Each solar light has a unique identification code and must be signed out by the Librarian and returned to the school by the student borrowing the light within the agreed time. At the time of borrowing, the student (or parent/guardian) will pay the token rental fee and agree with the Librarian what date the light must be returned to the Library. Some lights will require recharging at the school within the borrowing period.
10. The Librarian will be responsible for making sure that the solar lights are fully recharged at the school before being made available for other students to borrow.
11. The Library should have limited opening hours – it is suggested that this fits within normal school activity.
12. The School Management Committee should decide together which school grades the Light Library is available for (this may be all students at school) and review the operations of the Library after the first month of operation to ensure that it is being run correctly and effectively.
13. Thereafter, the Librarian should report to the School Committee every 3 months on how the Library is being used and if there are any issues which need attention.

6.

HOW TO USE, RECHARGE AND MAINTAIN SOLAR LIGHTS

Solar lights are easy to use and each comes with its own manual which explains how they should be used and maintained. Below is a summary of key information to understand:

- Solar lights are lights which have a rechargeable battery inside which is recharged by a solar panel. The solar panel may form part of the light or be a separate panel which is connected to the light with a lead.
- The solar panel must be placed outside in the sun in order to generate electricity and connected to the light in order to recharge the battery.
- Where possible, the panel should face the sun to maximise the power it generates. As the sun moves across the sky, where possible, the panel should be moved during the day to face the morning, noon and afternoon sun.
- Solar panels use the sun's light (not heat) to generate electricity.
- Each solar light has its own operations manual which explains how to use, recharge and maintain the light.
- Never leave the solar light in an unsecure area where it is at risk of being stolen.
- Always make sure the solar panel is kept free of dirt, dust or shadows in order to ensure sunlight reaches the panel so that it can generate electricity.
- You can clean the solar panel with a soft, damp cloth.
- Solar lights are designed to work for many years if well treated.
- If a light stops working, make sure you try fully recharging it in the sun for a full day. It may simply be out of power.
- The School Management Committee should keep a record of any faults, breakages or thefts and have this ready for periodic inspection.

Product information sheets are included along with this Light Library manual.

7.

SUPPORT

If you have any questions, concerns or complaints about the Light Library, you can contact:

Project Team	
Address	
Telephone	

8

QUESTIONS AND ANSWERS

What is the life expectancy of the lights?

Every solar light available in the Light Library has a battery life of 3+ years. If they are looked after well, then they can last even longer. The batteries may also be replaced after this period in order to extend their life.

What if a solar light stops working?

All solar lights come with a warranty. If a solar light stops working within the warranty period, please go through the steps in the trouble shooting guide. If the solar light still does not work, then you can contact the Project Team above or the Light Library Project Management Committee who will replace the solar light.

If a solar light stops working after the warranty period, it may be possible to repair the solar light. In this case, you can contact [Project Team Name] for details of the nearest repair centre.

It is the school's Light Library Management Committee's responsibility to ensure that lights in the Library are cared for and that parents/students understand how to look after them to ensure maximum lifespan.

What should we do if a child does not return a light they have borrowed?

Every effort should be made to contact the student and the parent (referring to contact details on the Participant Register). If you are still unable to locate the student/parent who has the missing light, then the missing light must be recorded in the Library Product Register and the student who has not returned the light must be removed from the Participant Register and not be allowed to borrow again.

Can students or members of the community buy a solar light?

Members of the community who want to buy a solar light may contact the Project Team above who will be able to advise where the nearest solar agent is located.

What if the school does not have enough willing people to monitor the Library efficiently?

We would encourage the school to ask parents and trusted community members if they would be willing to help support the Library – it is a real opportunity for children to do better at school and families to try out this new, environmentally-friendly and economically-friendly technology.

What if people want to rent a light but do not have any money to do so?

We have purposefully put the rental charge for the small lights at just a token rate. We hope that everyone will get a chance to borrow a light at this price.

Why do the lights have numbers on them?

The lights have numbers on them to help the Librarian track and monitor which lights are currently out of the Library and they can immediately know who has/hasn't returned their light for charging. It also helps to identify if there are any lights with faults.

What kind of maintenance is required on the lights?

Solar lights need to be cared for and not misused. If the lights are used in accordance with the product manuals, they should work for many years without any maintenance.

If the light is not working, it may be faulty and hopefully can be replaced. See question above about what to do with faulty lights.

How long do the lights need to be in the sun until they are fully charged?

It is best to recharge lights all day long.

How many hours of light will a fully charged light offer?

The light should work for a minimum of four hours after a full day of solar charging.

What are the benefits of the library?

We hope that the school will recognise the benefit of being included in the Light Library project as an opportunity for their students to study in the evening.

Will you be contacting the parents of our students directly?

Apart from a letter that has been written to the parents of your students that will be given to the school to hand out to all students, the Project Team may conduct follow up interviews with parents to find out what they think of the solar lights. These interviews would be conducted by phone or in person and would only be conducted if the parents agree to take part.

What if we think the library is not being beneficial and would like to remove it?

Please call the Project Team or the Light Library Project Management Committee to share information on this.

Will we be able to get extra materials i.e. registers for the Library if we need more?

The Light Library Project Management Committee may be able to provide this, but after the initial deployment of the project, it is likely that the school would be asked to continue this resourcing. The Light Library Management Committee at the school might like to consider using a small proportion of the funds from rental charges to pay for notebooks to keep registers in future.

9.

RESOURCES

This is a list of resources you will be given to support the management of the Light Library:

A letter to parents

To be taken home with students to let parents know about the Library and to come and register if they are interested to participate.

A participation register

To record students (and parent/guardians) who have signed up to use the Library.

A product register

A list of lights in the Library with their unique identification number for easy tracking.

A usage register

To record the movement of lights in and out of the Library and record payment.

Solar product manuals

To give more information and details of how each light works and how it should be cared for.

10.

EXAMPLES OF REGISTERS

Product register (sample) – this will be completed prior to arrival at your school

Light no.	Type of light (if lights differ)
1	
2	
3	

Participation register (sample) – this needs to be completed to register participants

Student no.	Name of student	Male/ female	Grade	Name of parent/ guardian	Address	Phone number	Agreement: parent/ guardian signature
1	Temwa Banda	Female	4	Maggie Banda	Rufunsa	9671798X	M Banda
2							
3							

Usage register (sample) – this needs to be completed to track light usage

Light no.	Date: light lending	Student no. (refer to participation register)	Payment (amount in Kwacha)	No. days paid for	Date: light to be returned	Signature of student/ parent	Signature of Librarian	Date light returned	Signature of Librarian	Notes including condition of light
5	28th Jan 19	12		3	31st Jan	T Banda	Ms Michelo	31st Jan	Ms Michelo	Good condition

11.

HOW TO USE SOLAR LIGHTS 'DO'S AND DON'TS

Every solar light comes with information on how to correctly use and care for the solar light.
In order to keep your solar light in good working order it is important to understand some key Do's and Don'ts:

DO'S

- **Charge your light** with the panel **facing the sun**
- Use the light for 4 or more hours a night **after fully charging it**
- **Charge your phone during the day** while the panel is facing the sun to maximize battery usage *
- Do **charge your light every day** even when it is cloudy
- Keep your **light and panel clean** and free of dirt or dust

DON'TS

- **Do not try to repair**, open or temper with your light or panel
- Do not leave the solar light **outside in the rain**
- **Do NOT put near fire** or hot surfaces
- **Do not allow sand or dirt near the light**. When the panel is wet or dirty, wipe it clean

Assistance

If would like support with your solar light project, please get in touch by emailing us at:
info@solar-aid.org

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