

Solar Cooker Project
Final Project Evaluation Report
14th January – 3rd February 2014



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Acronyms and Abbreviations

CNARR: National Commission of Refugees and Returnees
CORD: Christian Outreach Relief and Development
FGD: Focus Group Discussion
HIAS: Hebrew Immigration Aid Services
IGA: Income-Generating Activity
JWW: Jewish World Watch
KII: Key Informant Interviews
LWF: Lutheran World Federation
M&E: Monitoring & Evaluation
NGO: Non-Governmental Organization
SCP: Solar Cooker Project
TOR: Terms of Reference
UNHCR: United Nations High Commission for Refugees

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Executive Summary

The Cord SCP has been present in Farchana refugee camp, Eastern Chad since April 2011. The funding for the project, provided by JWW, finished in December 2013 and this report is the output of the project evaluation that took place during the period between 14th January and 3rd February 2014.

The evaluation used a participative approach that supported the strengthening of the existing capacity of the Cord Chad SCP team. It consisted of a series of training sessions on evaluation skills and techniques followed by the data collection phase during which 6 FGDs and 8 KIIs were carried out.

The project can be seen to have been successful in achieving its objectives and was well received by the project beneficiaries as demonstrated by high levels of SC usage during the 'dry' season (November – June).

The main results of the SCP that emerged during the evaluation were as follows:

- Contribution towards increased levels of school enrolment, attendance & achievement for girls
- A contribution to the reduction in the overall level of violence towards women & girls
- A reduction in the frequency of trips outside the camp by women & girls to look for firewood
- A reduction in the consumption of firewood as indicated by the decrease in frequency of trips outside the camp to search for firewood
- Increased empowerment of the women involved in the project through the establishment of a committee, greater decision-making rights in the project, increased autonomy in daily life, increased participation in household management, skills training on literacy & numeracy and involvement in an IGA

However, despite these successes, a significant detracting factor for the project is its lack of physical sustainability after the cessation of funding. This is an area that requires attention and needs to be addressed as a top priority. Other lesser shortfalls of the project were related to the reduced ability to cook with the SC during the 'rainy' season (July – October) and the inability of the SC to cook at the beginning and end of the day due to insufficient sunlight.

Other unanticipated results relating to the reduction of domestic violence & marital conflict, the significant support provided by the SC to the vulnerable and physically weak & the improvement in health levels require further investigation to ensure a full understanding.

From a peacebuilding perspective, although there is significant potential for this project, in its current state the project has no significant peacebuilding impact. In order for the peacebuilding potential to be realised, specific project components relating to conflict sensitivity, gender-based violence and domestic violence need to be included & monitored.

Given the success of the SCP, following the adaptation of the project according to the lessons learned, the recommendation of this evaluation is that the project be replicated in the other locations in which Cord works.

Programme Description & Objectives

The Darfur refugee crisis in 2003 was characterized by atrocities and high level insecurity that led 360,000 Sudanese refugees to leave their homeland and move to Eastern Chad. Currently 281,000 refugees are hosted in refugee camps along the border with Sudan (UNHCR, January 2013). Living in a hostile and arid environment with a scarcity of natural resources, living conditions remain very difficult. Compounded by the recurrent food crises caused by severe drought in the Sahel region, this is impacting on the well-being of the refugees in the camps.

Cord has been operational in this context since 2004, providing pre-school and primary education support to Sudanese refugees in four camps: Farchana, Gaga, Bredjing and Treguine. School enrolment at the end of 2012 for students receiving pre-and primary school education was 89%. However, a key challenge was the low rates of registration and the irregular attendance of female students. Statistics consistently show that the number of girls attending primary school drops sharply from Grade 5 to Grade 8, representing the age group of 11 years and above.



This is due mainly to the burden of household chores required of girls aged 11 and above creating a barrier to their attendance in school. Depletion of firewood stocks close to villages and refugee camps, where a large population depends on these scarce resources for cooking, means girls and women spend up to 10 hours collecting firewood as often as 3 or 4 times a week. This prevents women and girls from accessing the education opportunities available to them.

This situation was the entry point to the solar cooker project Cord started in April 2011 in

Farchana camp with the aim of increasing access to women and girls' education through the provision of alternative cooking methods for their families. Additionally, leaving the camp to collect firewood exposes women and girls' to risks of sexual attacks as they frequently have to travel further in an arid and a sparsely wooded environment to collect firewood.

The original thinking for the project was that by reducing the need for women and girls to leave the camp they would therefore be more available to attend school and this would have a subsequent effect on the levels of sexual and gender based violence which women were experiencing outside of the camp when collecting firewood.

The project's objectives were to contribute to improved living conditions for girls and women refugees in Farchana Camp in Eastern Chad through:

- I. Increased access to education for women and girls by reducing time spent collecting firewood outside the camp;

Photos: Top & Middle – Dusty and dry environment within Farchana refugee Camp

- II. Improved protection for women and girls by reducing their risk of facing violence while collecting firewood outside the camp;
- III. Equip and train women to become independent actors in their own development, including managing a committee and planning future activities to ensure that women are equipped with the tools to sustain the success of the project;
- IV. Decrease the quantity of wood consumed by refugees, which contributes to environmental protection.
- V. Promote the solar energy use as an alternative to firewood and maintain vegetative cover

A Participative Approach to Evaluation

Within Cord it was recognized that this evaluation was not only an opportunity to evaluate the SCP but also to further develop the existing capacity of the Cord Chad solar cooker project team in relation to their monitoring and evaluation skills. Subsequently, a participatory approach was adopted in conjunction with the Cord Chad team and the structure of the evaluation was heavily influenced by this approach. As a result of this, the normal consultant role was replaced by the Quaker Peaceworker at Cord whose role was to facilitate the training sessions and the evaluation preparation period and to provide background support and advice for the team throughout the evaluation period. From a language perspective, the training and evaluation preparation were conducted in French with the support of a translator. Furthermore, it should be noted that all of the FGDs and KIs were facilitated by the SCP team in Arabic as this is the language spoken by the refugees.



The process consisted of the following activities:

Evaluation Preparation Training Sessions



The first four days of the evaluation consisted of a series of training sessions relating to the skills and techniques required in order to carry out a successful project evaluation. The objective of these sessions was to enhance the existing capacity of the SCP team to carry out evaluation activities and to collaboratively prepare for the evaluation. These sessions were held with the Cord Chad SCP team and focused on developing the following skills and techniques necessary for evaluation: active listening, focus group discussion techniques, key informant interview techniques,

facilitation skills, questioning skills and data analysis. As part of the training, a day's workshop was held with the team to develop the key questions on a broad range of subjects that would be used during the evaluation.

As part of Cord's commitment to participative approaches, there was also a good understanding of the need to involve the project stakeholders in the evaluation process. Following discussion with the team on how best to do this, a further workshop was held with a number of the refugee women who have received a solar cooker. This session was designed to better understand from the perspective of the women who use the solar cookers what were the most important aspects of the project for them. In order to increase the accessibility of the session a community-



based ranking tool was used to help guide the discussion and to ensure that the women were able to fully participate. The tool facilitated the women to share the most important aspects of the SCP and then to corporately rank those using stickers to indicate their preferences.

Following the session a number of additional aspects relating to the community building aspects of the SCP and the support provided for the sick and elderly were added to the questions to be used in the evaluation according to the priorities identified by the women.

Data Collection – FGDs & KIIs

During the training sessions the Cord SCP team identified a number of different groups, individuals and organizations for participation in the data collection phase of the evaluation. The two tools used for this process were FGDs and KIIs. The SCP team facilitated all of the sessions with the support of the Quaker Peaceworker in preparing for the sessions and developing strategies to develop the discussions further to gain a deeper understanding of the issues for the participants.

Focus Group Discussions were held with the following different groups of project stakeholders:

- 1. School age girls (12-18yr olds)(15 people)**
- 2. School age boys (12-18yr olds) (9 people)**
- 3. SCP Committee Women (12 People)**
- 4. Mothers of children (12 people)**
- 5. Fathers of children (8 people)**
- 6. Vulnerable Women – (12 People)**

NB. Vulnerable women were identified as those who are widowed or who have no family, the poorest families and those who have illnesses that impair their daily living.



Photos: Focus Group Discussions (left to right): School age boys, Mothers of Children, Fathers of Children

Key Informant Interviews were carried out with the following individuals:

- 1. President of the Refugee Camp**
- 2. President of the SCP Committee**
- 3. Farchana Schools Inspector**
- 4. A Female Teacher**
- 5. Medical Doctor of the region**
- 6. A Female head of household**
- 7. Farchana Village Chief**
- 8. Delep Village Chief**

The Quaker Peacemaker held meetings with each of the Cord Solar Cooker Project Team Members and the Programme Manager for Farchana in order to understand the team's perspective of the project and to record their learnings.

Additionally, meetings were organised with the following organisations to discuss their perspective on the results of the solar cooker project as all three organisations' work is impacted by the SCP:

1. LWF – As the environmental cluster lead for UNHCR within Farchana camp, LWF are responsible for the protection of the environment, distribution of firewood and state of facilities inside the camp. The SCP impacts the
2. HIAS – Community services cluster lead for UNHCR within the camp including social service aspects such as domestic and other forms of violence
3. UNHCR – Overall responsibility for running the camp

Overall Learning Process

The evaluation itself was used as a learning process in order to further develop the understanding and skills within the Cord SCP team. In order to capture the learning throughout the process, a number of different sessions were held.

During the training component of the evaluation, a daily morning reflection was held to discuss the previous day's learnings and observations.

As part of the data collection phase of the evaluation, a de-brief session was held with the team at the end of each day to discuss the day's activities, the data collected and to gather the key learnings from the day. A review of the key strengths of the day's activities and the opportunities for improvement was carried out and these learnings were subsequently used to develop plans for the following day with the aim of developing the team's capacity further and improving the quality of the following day's discussion groups and interviews.

Additionally, at the end of the evaluation, the Cord SCP team were interviewed individually to collect their learnings and personal reflections from the process

Key Terms

Afrah Oven – An Afrah Oven (*see photo right*) is an energy efficient stove that reduces wood consumption by up to 50%. It is normally of metal construction in a bucket shape with ventilation holes. These can be manufactured locally within the camp and the host community by trained artisans.



SCP Monitors – The SCP monitors are the 32 refugees (29 women & 3 men) employed by the project to carry out day to day activities. The camp is divided into zones and each zone has a number of blocks. Each monitor is responsible for a block and they undertake the monitoring of the weekly usage of the solar cookers within households in their block, carry out sensitisation programmes, train the beneficiaries and are the point of contact for any issues relating to the SC in their block.

Independent Actor – In this context, an independent actor is defined as someone who has the ability and power to make decisions concerning their own future. Ability can be understood to include the capacity for decision-making, management of resources, communication skills and personal ownership whereas power relates to issues such as financial and decision-making autonomy.

How Relevant are the Project Objectives and its Approach?

The Project Objectives

In general the core objectives of the solar cooker project remain highly relevant to the key stakeholders of the project and within the current context.

I. Increased access to education for women and girls by reducing time spent collecting firewood outside the camp;

Education was identified as a key need by all the key stakeholders consulted and remains of particularly significant importance to women and schoolgirls. Many see education as a necessity in order to get a job after school, for their future, for the development of their children and also as a way for women to be empowered. Additionally, education remains a key focus for UNHCR in Farchana camp. Therefore this first objective of the project has high relevance.

II. Improved protection for women and girls by reducing their risk of facing violence while collecting firewood outside the camp;

Throughout the focus group discussions, many participants highlighted that violence and abuse are still being perpetrated against women and children as they search for firewood outside of the refugee camp. As such, it was communicated that the need for protection of women and children still remains. The input of HIAS, an NGO responsible for community services within the camp, supports these conclusions and thus this objective can be seen as highly relevant.

III. Equip and train women to become independent actors in their own development, including managing a committee and planning future activities to ensure that women are equipped with the tools to sustain the success of the project;

Within the context of UNHCR reducing their financial support within Farchana camp year on year, there is an increasing drive to train and facilitate the refugee community to become 'self-sufficient'. Within the solar cooker project women's committee there is also the desire to obtain the skills and experience that supports the development of income generating activities and supports them controlling their future. Therefore the relevance of this objective remains high.

IV. Decrease the quantity of wood consumed by refugees, which contributes to environmental protection.

Chad is situated in the Sahel region and the Government have decreed nationally that it is illegal within Chad to cut live trees as this contributes towards the desertification process. Within the context of the refugee camp, the main source of fuel for cooking is firewood and there is a significant demand for an increasingly scarce resource. Additionally, owing to the reduction year on year in UNHCR funding, a contributing factor to the scarcity of firewood is the reduction in the quantity of firewood distributed by LWF. Figures for 2012 are unavailable as a different NGO (Africare) was in place at that time however LWF note that distribution was substantially higher in 2012 than in 2013 and the reduction between 2013-2014 is a further 10%. Within this context, the usage of firewood and its impact on the environment remains highly relevant.

V. Promote the solar energy use as an alternative to firewood and maintain vegetative cover

Connected to objective IV above, the development of alternative sources of fuel that provide a reduction in the usage of firewood and are sustainable are directly relevant for the environment within which the refugees live and also at the national level. Additionally, this is a key strategy for UNHCR to develop new alternative sources of fuel for the refugees and as such the objective is highly relevant.

The Approach of the Project

General Approach

The approach of the SCP in general has been relevant for the beneficiaries. From the outset of the project, refugee monitors were employed to manage the day-to-day collection of monitoring data that provided employment and ownership of the project within the refugee community. The project has been focussed on the needs of the beneficiaries and has responded at various points to changes in needs such as those of larger families where two SCs were distributed. The input of the SCP monitors is included in this evaluation through the SCP women's committee who represented the monitors and took part in a FGD.

Addition of Empowerment Elements

The addition of an objective relating to empowerment of the refugee women has helped to further increase the relevance of the project's approach. The change, from a more directive approach during the first 20 months of the project, towards a participative approach where more project decisions were taken jointly has been key in improving the overall relevance of the project for the refugee community. Specifically, the creation of a project committee consisting of representatives of the project monitors and the subsequent training that they have received has provided some support to the refugees in their desire to become independent, self-sufficient actors.

Gender

The project has focussed predominantly on the needs of women and girls as they have been identified as the most vulnerable groups. In order to improve the relevance of the project for Cord, additional inclusion of elements relating to gender-based violence (GBV) and domestic violence may provide increased understanding of the project results and of the gender dynamics within the project context.

Peacebuilding elements

As Cord continues its transition towards a peacebuilding focus, there is an increasingly necessity to ensure that peacebuilding elements are included within all existing projects. In this instance the SCP has significant potential for peacebuilding however this was not exploited in the project's current format. The SCP worked solely with the refugee community within the camp and did not work with the host community. Although there was an awareness of potential conflict in the area over scarce resources, there were no specific activities included within the project to monitor this. As such in order for any future SCP to be more relevant for Cord and to have a significant, coordinated and lasting peacebuilding impact, it will be necessary to use a conflict sensitive approach that works with both the refugee & host communities. Additional aspects of the project relating to GBV and domestic violence should also be included and monitored to ensure that any peacebuilding elements are well understood and fully integrated into the project objectives and monitoring plans.

What has been achieved?

A summary of the project results by objective is shown in Table 1 below. A full explanation of the project results can be found towards the back of this document in Annex 4.

Table 1: Summary of Project Results by Objective

Objective Description	Results
Overall Results	<ol style="list-style-type: none"> 100% distribution coverage of SC <ul style="list-style-type: none"> 5,760 SC distributed to 5,520 Households High Usage Levels during 'dry' season, lower during 'rainy' season <ul style="list-style-type: none"> Average of 80% of households use the SC throughout the year Significant seasonality, 'rainy season' average usage of 36% (July to October), 'dry season' average usage of 96% (Nov-June)
1. Increased access to education for women and girls by reducing time spent collecting firewood outside the camp;	<ol style="list-style-type: none"> Increased Level of Girls Enrolment <ul style="list-style-type: none"> The SCP has contributed to an increase in the enrolment level for girls from 81% to 94% between April 2011 – Dec 2013
	<ol style="list-style-type: none"> Mothers increasingly taking the lead with children's education <ul style="list-style-type: none"> Literacy training has enabled mothers to participate more in their children's education and highlight its importance
	<ol style="list-style-type: none"> Increased Level of Girls Attendance in School <ul style="list-style-type: none"> The SCP has contributed to an increase in girl's attendance levels from 69% to 91% between April 2011 – Dec 2013, a change in attendance from 3.45 – 4.55 days per week representing a 20%+ increase
	<ol style="list-style-type: none"> Free time created by reduced participation in wood collection for girls <ul style="list-style-type: none"> Increase in free time due to reduction in wood collection chores has supported regular school attendance
	<ol style="list-style-type: none"> Food ready during school break <ul style="list-style-type: none"> The children can return from school and food prepped by the SC is ready and facilitates an on time return to school for classes
	<ol style="list-style-type: none"> Free time for revision of classes <ul style="list-style-type: none"> The pass rate of girls has increased from 42% in 2011 to 77% in 2013 aided by the free time the SC has created for revision
	<ol style="list-style-type: none"> Reduction in the Time Spent Collecting Firewood Outside the Camp <ul style="list-style-type: none"> Within a 30 day period the no. of trips outside the camp to collect firewood have decreased from 102 – 36 trips, a three-fold reduction
2. Improved protection for women and girls by reducing their risk of facing violence while collecting firewood outside the camp	<ol style="list-style-type: none"> Reduction in overall violence levels <ul style="list-style-type: none"> No data was available at the time of evaluation for reported cases of violence outside the camp however there has been a decrease in total reported cases of violence to HIAS from approx. 90 in 2012 to 52 in 2013
	<ol style="list-style-type: none"> Reduction in Trips Outside the Camp <ul style="list-style-type: none"> Within a 30 day period the no. of trips outside the camp to collect firewood have decreased from 102 – 36 trips, a three-fold reduction

<p>2. Improved protection for women and girls by reducing their risk of facing violence while collecting firewood outside the camp</p>	<p>3. <i>Development of new strategies</i></p> <ul style="list-style-type: none"> - During the project the women in the camps have developed new strategies such as accompaniment, leaving in groups, staying as a group, use of a phone in order to reduce the risk of attack outside of the camp
<p>3. Equip and train women to become independent actors in their own development, including managing a committee and planning future activities to ensure that women are equipped with the tools to sustain the success of the project</p>	<p>1. <i>Establishment of a SCP womens committee</i></p> <ul style="list-style-type: none"> - A committee of 12 women was created in Jan 2013 to run the SCP and future projects to improve living conditions
	<p>2. <i>Introduction of an IGA- Afrah Ovens</i></p> <ul style="list-style-type: none"> - In March 2013 the womens committee selected the Afrah Ovens project as their first IGA, funding was secured in June 2013 and the project commenced in October 2013
	<p>3. <i>Literacy and Numeracy Training for the SCP Monitors</i></p> <ul style="list-style-type: none"> - Between June and September 2013, 32 SCP monitors (29 women and 3 men) participated in two months of literacy and numeracy training to support their empowerment
	<p>4. <i>Increased participation in the management of the household</i></p> <ul style="list-style-type: none"> - The women employed by the project have reported that they have acquired some additional decision rights, increased levels of respect and a mutual accountability with their husbands on how to run the household
	<p>5. <i>Awareness of Human Rights, especially those of Women and Children</i></p> <ul style="list-style-type: none"> - As part of the sensitisation carried out by the project, women have a greater understanding of their rights including the right to be respected and regarded in society
	<p>6. <i>Greater Autonomy</i></p> <ul style="list-style-type: none"> - Increased freedom for women to choose their activities within their free time - The SC allows them greater freedom when it comes to choosing where and how women will earn money and how they will spend that money - Increased ability for children to prepare food for themselves as the SC is simple and easy to use without danger for the children
<p>4 & 5. Decrease the quantity of wood consumed by refugees, which contributes to environmental protection. Promote the solar energy use as an alternative to firewood and maintain vegetative cover</p>	<p>1) <i>Reduction in the Quantity of wood consumed by the refugees</i></p> <ul style="list-style-type: none"> - No direct measure of wood consumption available - Proxy indicator of No. of trips outside the camp shows a three-fold reduction since the start of the SCP
	<p>2) <i>Reduction in the Cutting of Live Trees</i></p> <ul style="list-style-type: none"> - Participants shared that the SCP has helped to better understand the environment and provided a tool to help take away the necessity to cut trees
	<p>3) <i>Increased Awareness of Environmental Importance</i></p> <ul style="list-style-type: none"> - Sensitisation of families to the importance of the environment, the need to protect it and how the SC can contribute has impacted people's perspectives and behaviours in a positive manner.

4 & 5. Decrease the quantity of wood consumed by refugees, which contributes to environmental protection. Promote the solar energy use as an alternative to firewood and maintain vegetative cover	- New trees being planted within households
	4) Decreased Pollution <ul style="list-style-type: none"> - Observed general reduction in air pollution at both the household level in the kitchen and at the camp level as there are significantly less fires (and therefore less smoke) during the daytime period following the introduction of the SC as a smoke-free method of cooking

Unanticipated Results

Throughout the duration of the project there have been a number of unanticipated results that are outside of the original project objectives. A summary of these can be seen in Table 2 below and a full explanation can be found in Annex 5 towards the end of this document.

Table 2: Summary of Unanticipated Project Results

Result Category	Results
Protection	1. Reduction in Domestic Violence <ul style="list-style-type: none"> - The SC results in relation to domestic violence do not appear to address the root causes of violence, however there are a number of avoidance strategies that have emerged: - The SC has enabled the meals to be ready more consistently for husbands on their return from work avoiding delays and violent conflict - Women can continue to create meals even if they are delayed in the collection of firewood, again avoiding violent conflict - It should be noted that not all women were in agreement with this aspect of the SCP and some felt it had made no change or even created conflict due to occasions when the weather changed and food in the SC didn't cook on time. 2. Reduction in Marital Conflict <ul style="list-style-type: none"> - The SC has helped to reduce marital conflict through reduced pressure on firewood consumption, prep of food on time, improved communication as a result of literacy training and more time to spend developing understanding with husbands 3. Aids the Vulnerable & Physically Weak <ul style="list-style-type: none"> - Ease of SC to prep and cook food of great assistance to Vulnerable, sick and elderly - Reduces need to look for firewood esp. for those less able to leave the camp - Can cook with the SC and rest whilst doing so with minimal movement
Health	1. Reduction in Illnesses, especially smoke related <ul style="list-style-type: none"> - The health centre in Farchana camp reports a 61% reduction in eye irritation, 58% reduction in cases of headaches, 72% reduction in coughs following the commencement of the SCP

	<ul style="list-style-type: none"> - No burns since the introduction of the SCP in the camp
Health	<p>2. Reduction in Unplanned Fires</p> <ul style="list-style-type: none"> - As a consequence of fewer fires during the daytime period, children have less opportunity to play with the fire and to cause unwanted household fires. These fires used to be a common occurrence but are now rare.
Other Results	<p>1) Improved community relations through communal gatherings</p> <ul style="list-style-type: none"> - The community gather the SCs together for ceremonies and gatherings such as funerals to make enough tea or food for all of the people present <p>2) Improved Relationships between Host Community and the Refugee Community</p> <ul style="list-style-type: none"> - Predominantly due to the introduction of the mixed committee to discuss issues and tensions - Some contribution to reduced tensions from the reduction in need for firewood from the refugee community - As part of another donor funded project, the Host community in Delep have developed good relations with refugees due to exchanges based on the SC



Photos: project beneficiaries using their Solar Cookers



Photo: SCP Monitors & Members of the womens committee



Photo: Boys and girls attending class in the camp

Strengths and Weaknesses of Project Results

In general it can be seen that the SCs have been adopted by the refugee community as an easy to use and viable method of cooking and the high levels of usage during the dry season testify that the SC is of worth to the majority of people who have received one.

There have been a broad range of results across the fields of education, environment, empowerment, economics, protection and health and the project's ability to have an influence in all these different spheres is a key strength. This demonstrates that the SC is not solely of value when preparing and cooking food but that it has been fully integrated into all aspects of daily life.

Strengths

- 1) The project has been able to distribute a SC to every household within Farchana camp. This level of coverage ensures that everybody has access to the SC and avoids conflict within the camp.
- 2) Within the area of education, the increased levels of enrolment combined with increased attendance and pass rates for girls are significant for the future of the girls currently in the education system. They have created a culture where education is understood to be important and school attendance is a normal part of everyday life for the children within the camp.
- 3) The project appears to have had a significant impact within the area of protection. The changes observed in the occurrence of violence outside the camp combined with the positive changes within the household relating to domestic violence and marital conflicts have made a positive difference to the lives of the women in the camp. Although this is a positive, it should be noted that there is the need for further research in this area to ensure Cord has a good understanding of the significant complexities involved and is also able to identify indicators which can be used as data to better monitor changes within the realm of protection. Closer collaboration with the work that HIAS does in the camp may be a helpful first step.
- 4) The project has employed 32 refugees (29 women and 3 men) as monitors/trainers in order to run the day to day activities of the project. This has helped to embed the SC within the community and enabled the monitors to take ownership of the project. These structures have been effectively utilised to sensitise to a number of different subjects such as human rights, importance of environment etc.
- 5) After January 2013, the Cord team adopted a 'participative' approach with regard to the management of the SCP and a SCP committee was established. This approach has helped to begin the transition of the beneficiaries from dependent to independent actors and has increased their empowerment by being more fully involved in the project through increased training, responsibility, ownership and decision-making rights. There has also been a reported change in self-perception and confidence within the women which has facilitated increased participation in public life.
- 6) The Afrah Ovens IGA project presents a real opportunity to continue to support the empowerment of the individuals within the SCP committee and allow Cord to take a further step back from hands-on project management.
- 7) From the perspective of the beneficiaries there were very few negative aspects to the

project and their experience of the SCP was generally very positive.

Weaknesses

- 1) At the commencement of the SCP there was no exit strategy identified or communicated by Cord. As such, although activities during the project phase out have supported this transition, the project beneficiaries do not appear ready to continue without Cord or the finance provided by the project. Additionally, many of the project results are threatened by the lack of sustainability of the physical aspects of the project at the present time.
- 2) The usage levels of the SC during the period July – October are very low. During this period, there is extensive cloud coverage and it is extremely difficult for the refugees to continue to use the solar cooker regularly during this period. This results in an increase in the number of trips outside the camp to collect firewood and an overall increase in firewood consumption.
- 3) The construction of the SC is not robust and, given the high usage levels during the period November to June, is subjected to daily wear and tear in a challenging climate. Typically this means that the SC is only usable for around 18 months and does not last the expected two-year period.
- 4) The refugee community's daily routine consists of getting up early around 6am & preparing tea for the day, eating breakfast at around 10am & then another meal in the evening period. The SC only functions during daylight hours, this results in the refugees needing to use wood for the period early in the day when the sun has not risen fully & the temperature is cold, & at the end of the day when the sun has set. The consequence of this is that the SC helps with one out of three periods during the daily routine rather than all three.
- 5) A number of the project aspects do not have a project baseline from which to measure change throughout the project. Specifically, changes with regard to the environment, health, protection and conflict do not have a baseline from which changes can be tracked.
- 6) Although the construction of SCs for the second phase was able to be carried out by the women in the SC centre, the materials required for the SC were not sourced locally and this will inhibit the ability of the refugees to take over the supply chain in the future.
- 7) The level of empowerment of the women would have potentially been significantly further developed if the project had included elements to address this from the start of the project. Although there has been some positive progress in the empowerment of women since Jan 2013, this has been a relatively short period of time to make significant progress as this is an extremely challenging transition. It may be that the women's involvement in the ongoing afrah ovens IGA may be a useful way of making significant progress in this area.
7. The existing resource based inter-community conflict between the host community and refugee community has not formed a significant part of the SCP. This is because this aspect was not integrated into the project objectives or activities. Additionally there were no indicators selected to monitor these interactions throughout the project.
8. From a gender perspective, the project has worked heavily with the female refugees as these were highlighted as the key beneficiaries. However, in order to bring about greater changes in empowerment, protection, domestic violence and the environment further activities involving the men of the refugee camp may have been beneficial.

How well have the resources been used?

The specific analysis of the SCP budget and expenditure were not included within this evaluation. Therefore, this evaluation will not comment on issues such as value for money or provide comparison with the budgets of other projects. This section will focus on how the physical and human resources have been managed and what impact this has had on the project.

In general the project resources have been managed well and have facilitated the successful completion of the project. There was however a number of areas in which the resource use negatively impacted the project and these are outlined below:

The Cord SCP Staff

The initial Cord SCP staff team encountered a number of challenges during the first 14 months of the project. Internal conflicts within the team prevented the team from working effectively together and it is likely that this had a negative impact on the running of the project. This was addressed with personnel changes that took place from August 2012 onwards and helped to significantly improve the quality of the team.

The addition of a female member of staff in June 2013 has benefitted the project as it has given the staff team an extra dimension and a new way to connect with the project beneficiaries. Although it is not clear how the deficiency of female employees impacted the relationship with the female refugees prior to this, it may have helped the project further if the team created at the start of the project had been of mixed sexes or predominantly in order to better reflect the target population.

With regard to the capacity of the Cord team to manage the SCP, there were a number of areas highlighted where additional training and support would have been beneficial. From an M&E perspective, the team have not received any training on how to design and use M&E tools or how to use terminology such as objectives, results and impacts. From a project management perspective, within the team there is a need for increased understanding of project budget management and there were problems resulting from items missing from the budget. Furthermore, there is a need for training on the management of data and the tools used to present it.

It would be beneficial to undertake a capacity needs assessment of the Cord staff team to better understand which areas require strengthening in order to further support the Cord staff in their project execution and monitoring.

Limited Technical Support

Throughout the project, as there was not the existing knowledge, the Cord team has been seeking a technical specialist in the area of SCs in order to support the project. In an attempt to address this, an information exchange was arranged with Chad Solaire who visited Cord to better understand the approach taken. However the return visit of Cord staff to see the work of Chad Solaire did not take place due to budget constraints and therefore a significant learning opportunity was missed. Given the feedback from the Cord team, it is likely that the input of technical support would have improved the project by helping to resolve issues and developing the SC design further to improve its quality. On projects with technical complexity it recommended that ongoing technical support is identified at the start of the project.

SC Supply Chain

During the initial stages of the project the constructed SCs were purchased from a company in Kenya. Unfortunately due to the unreliability of the supplier there was a delay of 11 months in the delivery of the SC that significantly impacted the project timelines and resulted in slower distribution of SCs and rollout of the project to the whole camp.

The supplier was changed for phase two of the project and it was decided that the component materials would be purchased to enable the women to construct the SCs on site in the SC centre. However delays of over 5 months were experienced with the supplier of the carton and eventually the contract with the supplier was terminated. There is still an ongoing dispute with this supplier. The carton was supplied by Chad Solaire however the quality of this material is inferior to that of the other supplier.

These challenges in procurement have caused delays of over 16 months during the 32-month duration of the SCP. This represents 50% of the project timeline and has significantly hindered the progress of the project and the deployment of resources. Additionally these delays have caused some conflict within the camp as the distribution timelines meant that some refugees received their SCs significantly in advance of others. Cord was also not able to clearly inform the beneficiaries of the timelines due to the uncertainty caused by the supply chain issues. For future SCPs, a strong supply chain needs to be established which can provide both timely delivery and a high quality of product. If possible, all materials should be sourced within Chad in order to reduce the complexity of the supply chain.

Common Understanding of Expectations

At the start of the project there was an insufficient mutual understanding between Cord and JWW of the expectations as to how the project would be implemented and specifically who would be employed by the project. The Cord SCP team recruited a number of SC monitors both male and female but this was not aligned with the all-female approach that JWW anticipated. This created a number of challenges that needed to be worked through with the refugee community and a considerable amount of additional work. In order to ensure a strong mutual understanding of expectations between Cord and its donors is established, it is suggested that extensive discussions are held prior to the commencement of the project approach to discuss the implementation approach.

What are the longer-term Impacts of the Project and how Sustainable are they?

Given that the project finished in December 2013, it is not possible to categorically state the impact of the project. Within Cord, impact tends to be longer term in nature and extends beyond the project timeframe, as such it is normally wider than a specific project and such there will be other contributory factors. However, in order to assess the sustainability of the SCP, the likely longer-term impacts will be discussed.

Physical Aspects

Taking a look at the physical aspects of the SCP i.e. the SCs, replacement bags etc. if there is no further funding for the project it is likely that the use of SC within Farchana camp will significantly decline to virtually zero usage over the next two years. Due to the fact that there are many households with SCs that are over two years old at this point in time, if these are not replaced or repaired then they will become unusable and people will revert back to using firewood. This is a significant shortfall as without further intervention & funding, many of the positive steps taken will be undone and therefore cannot be considered sustainable.

However, the infrastructure that is in place such as the weekly monitoring of usage by households, replacing of plastic bags, awareness raising of the SC etc. will continue to be carried out by the refugee project team for as long as there are people using the SCs and there is a supply of plastic bags. There is a strong desire within the refugee SCP team to continue with their daily activities for the project without funding being available.

In this scenario, a small pot of money could have a substantial benefit as it would allow ongoing repairs to damaged SCs, replacement of extremely damaged SCs and the supply of plastic bags. This would facilitate the continued usage of SCs within the camp until the point where the SCP committee are in a position to provide the finance themselves via their IGA. If this scenario is reached then it is possible that the physical elements of the SCP could also become sustainable without external funding and that would facilitate the project results that were discussed previously becoming longer-term impacts as well.

Children's Education

In the project's current state, one of the longer-term impacts of the SCP is likely to be related to the legacy that it has contributed towards education within the camp. There has been a cultural change within the camp with regard to education and the importance of education is now widely recognised and the SCP is one factor that has influenced this. It is likely that having seen and experienced the benefits of attending school, the majority of families would continue to encourage their children to attend school even in the absence of the SCs in the camp. For those girls in education now, the project has contributed to giving them the opportunity to progress to secondary school and the possibility to take up leadership roles within their society in the future.

Women's Education & Experience

For the women involved in the literacy and numeracy training, there is the potential for these experiences to remain with them into the future and to be built upon. The increased understanding of their rights, their role within society and subsequent changes in behaviour in public and in the home has changed the way that women are viewed and this may be something that stays in the refugee community after the project has finished.

Protection

Given the strong connection between time spent collecting wood outside the camp and the number of violent attacks on refugee women, if the SCs were no longer present within the camp it is likely that the usage of firewood would increase again and there would be a subsequent increase in the number of trips to search for firewood. In this scenario it is difficult to say if the level of violence would increase again however the situation would likely resemble that which was in place prior to the SCs introduction and thus cannot not be considered a long-term impact. One change that is likely to remain however is the implantation of strategies that the SCP contributed to during the sensitisation campaigns by the SC monitors. These will help to deal with violence outside the camp as the women now have experience of these.

Other aspects of protection in relation to domestic violence and marital conflict in the home are more difficult still to predict. Without a more extensive understanding of the nature of these results and additional quantitative data to support them it is difficult to estimate whether there would be a long-term impact that results from these changes.

Empowerment

With regard to the empowerment elements of the project, if support for the beneficiaries was no longer continued, it is difficult to see how the women involved would progress further towards the goal of being independent actors within their community.

The period of time where the committee has been proactively engaged with the decision-making in the project has been relatively short and activities carried out to this point have mostly been supported by Cord SCP staff. Additionally, up to this point the SCP has continued to provide an income to the monitors therefore there will now be the challenge of how to continue without these funds. Some of the members feel able to continue to make their monthly 500 CFA contribution towards the fund for starting an IGA however others feel that without an income they will be unable to contribute. In parallel the committee is still seeking additional funds from Cord and donors in order to continue their activities that suggests they do not feel ready to carry on independently.

In order for the women to be effectively equipped to be sustainable in the longer-term, the message appears to be that they would like to have experience being part of running a successful IGA. Although there has been significant training undertaken on this subject, the committee have not yet gained the practical experience of running an IGA, managing the associated challenges.

As the proposed IGA for the group is in its early stages, Cord is heavily involved in the planning and execution. There are opportunities for Cord to increase the involvement of the SCP committee in these planning stages and their associated challenges as this will provide valuable experience and ownership for the women going forward. Furthermore, the adoption of a coaching role by Cord staff rather than a lead role over the next 6 months will help the committee to be capable of running the IGA independently after that period.

In summary, the SCP has taken those involved some of the way towards becoming independent actors. This has been achieved through skills training, increased participation in their households, greater autonomy and greater involvement in project decision-making. However, there is still further work that needs to be done to secure the progress that has been made and the next year will be critical for Cord to transition away from the day to day support role and leave the beneficiaries with a sustainable IGA that could support the continuation of the SCP and have a longer-term impact to the community around them.

Health

The health results of the SCP are contingent on the reduced usage of fires within the household as facilitated by the SCs. If the SCs were no longer used within households then the health benefits would no longer exist and therefore they cannot be considered sustainable or a longer-term impact of the project.

Environment

The most significant environmental results of the SCP were connected with reduced firewood usage, reduced cutting of live trees and the increased awareness of the importance of the environment. As per other aspects of the project, without the SC there would likely be an increase in wood consumption and in the cutting of live trees thus these changes are not sustainable beyond the lifetime of the project. Although people's awareness of the importance of preserving the environment may be a lasting impact of the project, if the refugee community has no alternative cooking options it is likely that this understanding would take second place to the meeting of the refugees basic need to collect wood for enable food to be cooked.

Emerging Lessons

The following lessons emerged following the completion of the project and the final evaluation process:

Project Design

- 1) The lack of a clear exit strategy at the beginning of the project has meant that sustainability was not built into the project design and the physical aspects of the project are subsequently not sustainable following the cessation of funding without continued support for a further period.
- 2) The absence of a host community element to the original SCP has meant any efforts to build relationships between the two communities have been peripheral and have not monitored. Unless specific peacebuilding elements are included, it is likely there will not be any clear results.
- 3) This project was dependent upon the funding of a single donor, JWW. No supporting funders were searched for during the project duration. This resulted in a series of one-year duration projects which are difficult to manage due to their stop/start nature. Given the projects are normally more than a year in duration it may better for continuity to plan for a three-year project that is divided into annual chunks.
- 4) Earlier involvement of project beneficiaries in decision-making using a participative approach can increase ownership and sustainability of projects. The current Afrah Ovens project is a good opportunity to involve beneficiaries from an earlier stage including resolving the initial challenges.
- 5) In order to increase the usefulness of the SC to families, the provision of two SCs per household of normal size and three per large household would allow for a number of complementary food items such as rice and sauce to be prepared concurrently.
- 6) Orphan girls may be a group who do not fully benefit from the project due to a lack of support
- 7) Strong relationships have been developed with NGOs working alongside Cord in the camps as well as with local authorities (Sous-Prefect & CNARR) and UNHCR that have ensured the smooth running of the project and timely resolution of any issues
- 8) For procurement aspects, a strong supply chain needs to be in place prior to the commencement of the project and materials need to be sourced in country for sustainability purposes

Project M&E

- 9) Data management and presentation capacity is insufficient within field teams to enable confident management and presentation of project data
- 10) The absence of any formal evaluation prior to the end of the project may have hindered its further development and progression
- 11) Prior to this project evaluation, the majority of the Cord SCP team had not had the opportunity to participate in a project evaluation

- 12) Data collected throughout the SCP was stored in different places making it difficult to access and understand what is available for analysis.
- 13) The baseline data needs to be available prior to the creation of the project budget in order to ensure actual needs are factored into the budget
- 14) Although there are protection and empowerment elements to the SCP, the M&E tools used throughout the project have a narrow focus (usage, ed. levels, trips outside the camp) and are not suitable for the measurement of these project aspects.
- 15) Through participation in the evaluation, the Cord SCP staff developed an appreciation that the project results were wider than they had previously considered.
- 16) The absence of a comprehensive set of baseline data limited some of the conclusions that can be made regarding the project.

Team

- 17) There appears to be insufficient opportunities created within the SCP team to reflect upon project activities and their ongoing impact. Currently the team's focus is upon the effective implementation of project activities without space to reflect, discuss best practice and to understand what is working/what is not. The creation of space for learning sessions or days that encourage the development of this practice would have a beneficial impact.
- 18) At the start of each project there is a need to carry out a capacity assessment of the Cord team to ensure that they are equipped to manage all of the elements of the project such as budgets, M&E, project management etc.
- 19) Culture and language can sometimes be a challenge for the project as the team are not of the same culture as the refugees and they don't all speak the same Arabic. This therefore this poses some challenges for communication and facilitation especially.
- 20) Additional awareness and training is required on how to manage key stakeholders connected with the project when trying to achieve buy-in or understanding

General

- 21) Following discussions with UNHCR, there has been a change in approach and there is now the opportunity for Cord to take the SCP into the other camps in which Cord works if the funding is available.
- 22) Support visits by the Africa Regional Team (ART), the UK based support team for Cord's African countries, require clear communication of the purpose of visits to be shared in advance to all members of field teams in order to allow for adequate advance preparation for all involved. This includes the translation of key elements of ToRs and project documents given that they are frequently written in English and the working language in country is French.

SCP Team Evaluation Reflections

Documented below is a selection of quotes from the Cord SCP team's reflections following their involvement in the evaluation process:

"Next time we will run the project better as before we didn't have the experience and we worked without the skills and tools of evaluation. It would have been better if the evaluation would have taken place earlier as that would have helped in the management of the project."

"I learned how to do an evaluation, before just heard about it, but now can participate in an evaluation without problems."

"I learnt how is an evaluation carried out – During an evaluation, it is important to reflect on the same day and plan for the next day the night before."

"I have learnt the techniques as to how to evaluate a project, how to collect the data, how to facilitate the discussion groups and how to run an interview."

"2 years 9 months with Cord and this is the first time I have taken part in such training and an evaluation."

"I have realised that everybody is impacted by the solar cooker and this was clear in the evaluation as we spoke to all the different groups."

"The evaluation has highlighted different aspects of the project that hadn't been considered before."

"I have the gained the courage in front of people, how to collect opinions and pose open questions and how to use active listening, reframing and how to use questions to go deeper."

"Taking notes is harder than being the facilitator! This requires more work as you have to listen and think how to arrange it and make it clear."

"The method of using a facilitator and observer to run a focus group helps to record more information and create a climate of dialogue."

Conclusions and Recommendations

This final project evaluation, through the qualitative and quantitative data collected, has shown that the SCP has created a significant number of important results for the refugee community within Farchana camp across a wide range of areas. These include increased school enrolment, attendance and pass levels for girls; the reduction in the cutting of live trees and increased environmental awareness; increased protection for women and girls resulting from reduced need to leave the camp to search for firewood; improved family health from the absence of smoke; and a range of results relating to the empowerment of the women within the refugee community.

The project is widely liked by the refugee community and there does not appear to be any major negative results arising from the project. However, the main weakness of the project is that in its current state the physical aspects are not sustainable beyond the cessation of funding. This is a significant issue that should be addressed prior to any future replication of the project and can be addressed in this project via the continuation of a small level of funding until the women's committee IGA is operational and generating income.

Other issues relate to its inability to be consistently used during the period between July – October and during the early morning and evening periods each day as well the questions regarding the sustainability of the physical aspects of the project.

Prior to the commencement of the project the Cord SCP team had not heard of solar power and as a result there has been a significant amount of new learning and experience gained by the team in relation to solar cooking technology. Additionally, for this type of project the Cord team have developed a good understanding of what approaches have worked well and what would be done differently if the project were run again. A number of the emerging lessons were as a result of the team's reflections on the project.

In light of the successful nature of the project and the learnings and experience derived by the Cord SCP team, it would seem logical for Cord to capitalise on this by exploring the option to run the SCP within the other three refugee camps that Cord currently works (Bredjing, Treguine and Gaga). However, as mentioned above, changes should first be made to the project design in order to ensure sustainability of the physical aspects of the project beyond the funding period and that the peacebuilding elements of the project are fully integrated into the objectives.

The project evaluation makes the following recommendations:

- 1) Source further funding for the continuation of a small level of funding until the women's committee IGA is operational and generating income to provide for the physical aspects of the project.
- 2) As part of any new project design, clearly outline the exit strategy and how the project will be sustainable beyond the project lifetime. For the SCP this is a critical aspect that needs to be addressed.
- 3) Undertake research that facilitates the development of a sustainable supply chain for the SC materials within Chad and investigate alternative SCs that are more effective and durable. The result of this would be local production of the SC using locally available materials.
- 4) In light of UNHCR's support of Cord to run the SCP in other camps, explore the option to take the developed SCP to the other camps in which Cord currently works starting with

Gaga where the educational need for girls appears greatest.

- 5) Research and develop suitable indicators and tools for the monitoring of protection and empowerment aspects of the project and integrate into existing M&E structures.
- 6) Carry out a baseline data assessment workshop to identify any gaps in existing baseline data and integrate the new data into existing M&E structures.
- 7) Identify an M&E officer to 'champion' M&E of projects and ensure alignment across all teams and locations.
- 8) Use a conflict sensitive approach that includes host community elements including distribution of SCs for all future SCPs. It should be noted that an additional SCP funded by Tearfund has already been implemented in the host community of Delep (close to Farchana refugee camp) as a consequence of some of the learnings arising from this aspect of the JWW project. Additionally, all peacebuilding elements should be clearly integrated into the project objectives and monitoring plan.
- 9) Investigate the opportunity of creating a joint IGA between refugee and host communities for future projects as a means of increasing sustainability and working in a conflict sensitive manner.
- 10) Perform a full project evaluation at least once every two years during the lifetime of a project and ensure that local staff teams are trained and fully participate throughout the evaluation.
- 11) Adopt a participatory approach from the start of new projects and ensure that beneficiaries are fully involved in significant decision-making in order to more effectively development empowerment and the creation of independent actors.
- 12) Invest in data management training for the Cord staff team and create working standards for project data management.
- 13) Ensure that the SCP committee has immediate ownership and responsibility for the afrah ovens project including involvement in current fabrication cost discussions.
- 14) Create the space and opportunities for project teams to reflect and gather both personal and team learnings in order to better understand the impact of the team and the project.
- 15) It would be useful to include a gender-based violence and domestic violence focus into future SCPs that focus on developing resolving strategies (that address the core of the problem) rather than avoidance strategies (which deal with the effects). Additionally, cooperation with HIAS should be increased to further understand this area.