



SOLAR COOKER PROJECT FOR IMPOVERISHED FAMILIES IN HUALONG

TIBETAN DEVELOPMENT ASSISTANCE TRUST

Thanks to the Tibetan Development Assistance Trust for providing 25,000 RMB. This, plus the local contribution of 5,160 RMB, created a project of 30,360 RMB that benefited 1,656 local Tibetans (207 households) through a solar cooker project.

In the past, in Duoxi, a beneficiary village, people spent 5 days a week collecting yak dung and bushes. They burned a bundle of bushes and a half-bag of yak dung (1 plastic bag of yak dung weighs ~50kg). Currently, they only spend 1 to 2 days a week on collecting fuel. They burn 50% less yak dung in winter now, thanks to the solar cooker.

People boil water with solar cookers and cook such foods as noodles and potatoes. They also use solar cookers to make bread. The solar cooker has reduced fuel by about 50%. Families who own no livestock now sell the straw they burned before having the solar cooker to families with livestock.

The solar cooker project is one reason why 60 out of 80 women from Duoxi Village now leave the village to earn cash income, instead of staying at home to collect fuel. They earn 45 RMB to 50 RMB per person per day doing unskilled work.

Since implementation of this project, school enrolment of female students has increased. Approximately 84 additional female students attended Jinyuan Township Center School from all villages in Jinyuan.

During the 2009 national entrance exam for universities, students from the two project areas earned excellent scores and a greater number of students were accepted by different universities with different majors. Of the 39 senior middle school students accepted by universities, 18 were from Tiajia (8 girls, 10 boys) and 21 were from Jinyuan (16 boys, 5 girls). This is the first time this many students were accepted by different universities from these two areas in Hualong, which has encouraged local villagers who are now more likely to send their children, especially girls, to school.

We were told when we visited local schools that 99% of school-aged girls in these two Tibetan areas are now attending schools. While it is not possible to assign all of the reason for this to solar cookers, the cookers did contribute. Girls no longer needed to stay at home to collect fuel and extra cash income earned could help finance college education.

Queji (b. 1968), a native of Tiajia Tibetan Village said, "My family is one of the poorest families in my village. We used to collect bushes from the forest behind my village, but several years ago, the local government stopped us from collecting bushes there. Afterwards, we had a hard time finding fuel and we started collect yak dung on the mountains. There isn't much yak dung and we had to go a long way, searching for it. Rich families buy coal for fuel in winter but my family can't afford coal for fuel. Winter is very cold here and my home is cold without a fire. I put second-hand plastic sheets around the front of my house, trying to make it warmer. I now use my new solar cooker in summer and hot days can save my yak dung and straws which supposed to burn in summer and use it in cold winter."

Tibetan Development Assistance Trust

Solar Cooker Project

Final Report

to

Tibetan Development Assistance Trust

From

Shar Dzong Development Group

September 4, 2009

Solar Cooker Project for Impoverished Families in Hualong

Summary

What?

Solar Cooker Project for Impoverished Families

Where?

Hualong Hui Autonomous County, Haidong Region, Qinghai Province, China

Cost?

30,360 RMB

Beneficiaries?

207 households (Tibetans)

Duration?

January 5–July 25, 2008

Photographs



The Tibetan Development Assistance Trust sponsored solar cooker project.



The project committee and Shar Dzong Development Group members distribute solar cookers with local villagers' help.



Local villagers unload solar cookers



Lama Tsering (b. 1977) boils water on her new solar cooker. She used to burn collected yak dung for cooking. She still does but much less, especially on sunny days. She also spends much less time collecting yak dung.



The Tibetan Development Assistance Trust sponsored solar cooker project has greatly decreased the use of yak dung (behind solar cooker) and bushes which took locals much time to collect. Women now have more time to work on other activities to improve family incomes.



Tseji (b.1970) is from Duoxi Village. Her family is very impoverished. Before she had a new solar cooker, she burned straw to cook, which produced much smoke that made her suffer. She is glad to have a new, smokeless solar cooker.



Queji (b. 1968) of Tajia Village is very impoverished. Villagers collected bushes from a nearby forest until the government stopped them. Villagers then began collecting yak dung from distant mountains, though there is very little yak dung--they had no alternatives. Meanwhile, rich families buy coal for fuel. Queji's home is very cold in winter. She covers the doors and windows with plastic to conserve heat.

Part I: Project Report

1. **Project Title:** Solar Cooker Project for Impoverished Families
2. **Location:** Hualong Hui Autonomous County, Haidong Region, Qinghai Province.
3. **Applicants:** Lerjiater (Aaron) & Local Project Committee
4. **Implement organization:** Shar Dzung Development Group
5. **Estimated duration:** January 5–July 25, 2008
6. **Place of purchase of the solar cookers:** Liuji Solar Cooker Factory, Gansu Province
7. **Donor Contribution:** 25,000 RMB
8. **Local Villagers' Contribution:** 5,160 RMB
9. **Aaron's Personal Contribution:** 200 RMB
10. **Total project value:** 30,360 RMB
11. **Beneficiaries:** 207 households and 1,656 people
12. **Contact Persons:**

Lerjiater (Aaron)

Email: aaronhualong@hotmail.com/aaronhualong@yahoo.com
Tel: 13997483719

Dorji
Jinyuan Township Center School, Hualong County, Haidong Region, Qinghai Province
Tel: 13897717517
13. **Project start date:** January 5, 2008
14. **Project completion date:** January 25, 2008

Project Participants

Name	Responsibilities	Occupation
Lerjiater (Aaron)	Project applicant, manager	University student
Chris Cherry	Report editor	English language teacher
Dorji	Manager	Local teacher
Pencu	Manager	Villager
Zhaxi	Manager	Government official
Laduo	Manager	Village leader
Cairang	Manager	Villager
Yangdan	Manager	Local teacher

Dear Anneli,

We are pleased to report on the satisfactory completion of Solar Cooker Project for Impoverished Tibetan Families in Tajia and Jinyuan townships in Hualong Hui Autonomous County, Haidong Region, Qinghai Province.

This solar cooker distribution project was completed on July 25, 2008. This project has greatly benefited 207 households (1,656 villagers) in total. All beneficiaries are Tibetans.

The Tibetan Development Assistance Trust provided 25,000 RMB for this project. We spent 24,940 RMB to purchase solar cookers for 172 impoverished Tibetan families. One solar cooker cost 145 RMB and administrative costs such as accommodation, food and transportation were 60 RMB in total. Each solar cooker recipient contributed 30 RMB, which totaled 5,160 RMB, which we used to purchase 35 additional solar cookers. The 85 RMB that remained was used to rent motorcycles to visit project sites to monitor the quality of installation of the solar cookers. We distributed the cookers to Duoxi and Keba villages in Jinyuan Township, and Laga, Tajia, and Baijiaji villages in Tajia Tibetan Autonomous Township, Hualong County.

The villagers benefiting from the Tibetan Development Assistance Trust sponsored solar cookers are very pleased and much appreciate your help and kindness.

On behalf of all villagers from this area, we express our sincere gratitude for your assistance.

Sincerely yours,

Shar Dzong Development Group & Aaron (Lerjiater)

Project Activities

2008	Participants	Activities
January 5	Aaron	Project approved
January 6-8	Aaron & Dorji	Collected information about the villages
January 10	Aaron & Group members	Decided and selected the villages
January 18	Dorji	Informed the villagers that the project was approved
March 1	Aaron & committee	Contacted the factory, ordered the solar cookers
March 14	Aaron & village leaders	Collected local contribution
March 15	Aaron & village leaders	Collected local contribution
May 16	Aaron & Villagers	Distributed the solar cookers
May 27	Dorji & Villagers	Distributed the solar cookers
June 18	Dorji & Villagers	Distributed the solar cookers
June 19	Dorji & Villagers	Distributed the solar cookers
July 25-27	Aaron & Committee	Monitored the project villages and took photos
August 29, 2009	Aaron	Wrote final report

Project Background

Jinyuan and Tajia townships are located in the east of Hualong Hui Autonomous County, which is 200 km east of Xining City, the capital city of Qinghai Province, China. The inhabitants in this area are farmers who scratch out a living from the low-quality soil of the surrounding mountains. It is also impoverished due to the difficulty involved in transporting goods to the county town, the center of the local economy. All residents from this area mostly depend on non-irrigated fields and a few yak, sheep, and goats. Village leaders estimate that local cash income ranges between 250 and 300 RMB per person per year on average, which is earned mostly from collecting and selling caterpillar fungus in spring and summer. Such low income means most households are deeply in debt.

The small amount of irrigated land is used for growing wheat, the staple crop of many local Tibetan villages, which is then used to make bread and noodles. Villagers cultivate potatoes, rapeseed, beans, and barley on the non-irrigated land. Barley is mostly used to feed livestock. Current wheat fields give low yields that do not meet household subsistence needs. Consequently, the average household purchases about 1,000 kg of wheat each year. Local wheat sellers and wealthy families loan wheat on interest. A 50 kg sack of wheat costs 160 RMB at current prices, which means that an average household spends about 2,500 RMB per year on wheat.

Jinyuan and Tajia townships were selected to be project sites in Hualong County. Duoxi and Keba villages in Jinyuan Township and Laga, Tajia, and Baijiaji villages in Tajia Township were the specific sites for the project. The project started in January 2008 and was completed in July 2008. Support from the Tibetan Development Assistance Trust and local contributions allowed a total of 207 impoverished families to each receive a solar cooker, benefiting 1,656 Tibetans.

In the past, in Duoxi, a beneficiary village, people spent 5 days a week collecting yak dung and bushes. They burned a bundle of bushes and a half-bag of yak dung (1 plastic bag of yak dung weighs ~50kg). Currently, they only spend 1 to 2 days a week on collecting fuel. They burn 50% less yak dung in winter now, thanks to the solar cooker.

People boil water with solar cookers and cook such foods as noodles and potatoes. They also use solar cookers to make bread. The solar cooker has reduced fuel by about 50%. Families who own no livestock now sell the straw they burned before having the solar cooker to families with livestock.

The solar cooker project is one reason why 60 out of 80 women from Duoxi Village now leave the village to earn cash income, instead of staying at home to collect fuel. They earn 45 RMB to 50 RMB per person per day doing unskilled work.

Since implementation of this project, school enrolment of female students has increased. Approximately 84 additional female students attended Jinyuan Township Center School from all villages in Jinyuan.

During the 2009 national entrance exam for universities, students from the two project areas earned excellent scores and a greater number of students were accepted by different universities with different majors. Of the 39 senior middle school students accepted by universities, 18 were from Tiajia (8 girls, 10 boys) and 21 were from Jinyuan (16 boys, 5 girls). This is the first time this many students were accepted by different universities from these two areas in Hualong, which has encouraged local villagers who are now more likely to send their children, especially girls, to school.

We were told when we visited local schools that 99% of school-aged girls in these two Tibetan areas are now attending schools. While it is not possible to assign all of the reason for this to solar cookers, the cookers did contribute. Girls no longer needed to stay at home to collect fuel and extra cash income earned could help finance college education.

Part II: Project Financial Report

1. **Project Name:** Solar Cooker Project for Impoverished Families
2. **Project Implementing Organization:** Shar Dzong Development Group
3. **Project Implementation Period:** January 5, 2008—July 25, 2008
4. **The Tibetan Development Assistance Trust's Donation:** 25,000 RMB
5. **Local contribution:** 5,160 RMB
6. **Lerjiater's contribution:** 200 RMB
7. **Project Cost:** 30,360 RMB

Summary

Donor	Amount RMB
Tibetan Development Assistance Trust	25,000
Villagers	5,160
Lerjiater (Aaron)	200
Total Project	30,360

Detailed Financial Summary

Villagers = 5,160 RMB	
Contribution	Explanation
5,075	Purchased 35 additional solar cookers
85	Hired two motorcycles to visit the project sites to make sure the cookers were installed properly
Lerjiater = 200	
150	Monitoring visits to the project sites Villages + miscellaneous expenses
50	Rented motorcycles to visit project sites villages + phone calls

Project Original Budget

Item	Quantity	Unit Price	Total Price
Solar cookers	178 solar cookers	140 RMB/cooker	24,920
Management cost			80
Total			25,000

Financial Record for Donor Fund

Item	Quantity	Unit Price	Total Price RMB
Solar cookers	172	145 RMB/cooker	24,940
Administrative fee			60
Total			25,000

Financial Record for Local Contribution

Item	Quantity	Unit Price	Total Price
Solar cookers	35	145 RMB/cooker	5,075
Renting motorcycles	2 motorcycles	42.5 RMB/cycle	85
Total			5,160

Receipts for Donor's Fund

收款收据 N° 0061837

客户名称 化隆金源 年 6 月 20 日

规格品名	单位	数量	单价	金额
太阳灶	台	172	145	24940
合计大写 <u>贰万肆仟玖佰肆拾元</u>				

负责人: _____ 制单: _____

第二联 收据联

Tao Yongze received for Jinyuan & Tajia Solar Cooker Project Costs 24,940 RMB on June 20, 2008.

收条

今收到太阳灶开支陆拾元(60.00)

元正

收款人: 多杰才旦

08.7.28

Dorji Tsedan received for Jinyuan & Tiajia Solar Cooker Project Administrative Costs 60 RMB on July 28, 2008.

Solar Cookers for Impoverished Families



1. **Project title:** Solar Cooker Project for Impoverished Families in Hualong
2. **Location:** Hualong Hui Autonomous County, Haidong Region, Qinghai Province.
3. **Estimated duration:** Three months
4. **Place of purchase of the goods:** Liuji Solar Cooker Factory, Dahejia, Gansu Province.
5. **Aim of the project:**
 - Decrease the use of organic fuels and thereby lessen erosion and deforestation
 - Increase girl enrolment in schools
 - Save families money that can be used on other, more urgent expenses
 - Improve women's health by decreasing the time they are exposed to fresh dung collection and smoke-filled kitchen.
6. **Describe why the project is needed:** The area is a poor mountain area. Organic fuels are being collected for fuel to the detriment of the environment. This project aims to reduce villagers' expenditure of expensive coal and electricity fees and decrease smoke related illness caused by smoke in kitchens. Collecting fuel is traditionally women's work in this area. Women spend much time collecting yak dung, tree leaves, tree roots, bushes,

and plant roots in the mountains to use as fuel. Younger school-aged children are often not sent to school because they must help their parents collect fuel. Collecting these plants and organic matter has impacted the environment negatively. These fuels also produce thick smoke in the kitchen, which negatively impacts human health, particularly the health of women and girls.

7. Describe how the project will help to solve the problem: Solar cookers can be used to cook dishes, cook meat, boil water, bake bread, and boil and fry potatoes. Villagers will spend less time collecting fuel, and women will have more free time to do farming work, obtain paid work in nearby cities, and collect caterpillar fungus in grassland areas to meet living expenses. School-aged girls will have better chances to attend school and thus have brighter future prospects. Solar cookers will reduce household expense on coal and straw that was burnt could be fed to livestock. Human health will improve due to less smoke inhalation. Erosion caused by the collection of organic matter will also be reduced.

8. Result of the project: Currently, women spend four or five days a week collecting yak dung and plant roots in winter, and three days a week in summer. They will spend about two days a week in winter and one day in summer once the project finishes. Time saved can be spent in paid, temporary work, e.g., road construction works in neighbor counties. The solar cooker can be used to heat water, which will encourage more frequent washing of clothes and personal hygiene. More girls will be able to attend schools.

9. Project Plan:

- Funds received.
- Village meeting.
- Project Committee selected.
- Local contribution collected.
- Solar cookers distributed.
- The project sites monitored to ensure solar cookers are properly installed and used.

10. Describe who will benefit from the projects: This project will benefit 203 households and 1,671 people. All of the beneficiaries are Tibetans.

11. Budget for Donor Fund:

Item	Quantity	Unit Price	Total Price RMB
Solar cookers	178 solar cookers	140 RMB/cooker	24,920
Management			80
Total			25,000

12. Describe the contribution of the local community: Each recipient household will contribute 20 RMB for a total of 3,560 RMB, which will be used to purchase 25 additional solar cookers for 25 poor families and 60 RMB will be used to develop photos for the final report.

13. How will the project be sustained: Villagers will take care of their solar cookers and repair them.

14. How, when and in which measure the future beneficiaries and the local community will be involved in the evaluation : After the project is funded, local village meetings will be held to discuss the project; a local project committee will be selected that will involve in activities such as selecting recipient families, collecting local contributions, and purchasing and distributing the solar cookers.

15. Describe the standard for assessing the success of the project. Define the parameters you intend to use in order to measure these standard:

- See final report
- Visit the project sites and interview the beneficiaries
- Check quality of the solar cookers
- Check enrolment of the girls in school
- Check amount of time saved from fuel collecting
- Check improvement of personal hygiene and sanitation by using heated water

16. Describe who, when, with which methods and instruments will do the evaluation of the project results: After the project completed, Aaron will personally visit the project sites.

17. Describe precisely the system for monitoring in the short and long term, the impact and the results of the project: Aaron will monitor the project through periodic trips to the project sites. There will be consistent telephone contacts with the Village Project Committee. With the cooperation of the Project Committee, the goals and expectations of the project will be made clear to villagers.

18. General information of the area: This area is located in Hualong Hui Autonomous County, which is 200 km east of Xining City, the capital of Qinghai Province, China. The inhabitants in this area are farmers who scratch out a living from the infertile soils of the surrounding mountains. The village economy is further hampered by the challenge of poor roads and transportation. All residents depend on low-yielding fields and a few yaks, sheep, and goats. The average cash income per person per year is 250-300 RMB.

Historically straw, wood, bushes, and dung have been used as cooking fuels. Wood and bushes were collected from a small forest near the villages, which has now been banned by the government. This is a significant problem for villagers, because they are unable to afford coal. Many children are not sent to school but are kept at home to collect fuel, especially girls. A solar cooker will boil water, potatoes, and meat and it can also be used to cook bread. This project will reduce erosion as less organic materials will be gathered from the environment and increase villagers' income because they will spend less on coal and more children will attend school.