SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

Assessment of Ahotor stove Grants on Households Vulnerable to Child Labor and Trafficking

FEBRUARY, 2018
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Resonance Global:  https://resonanceglobal.com/
SNV:  http://www.snvworld.org/en/countries/ghana
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<td>Community Child Protection Committees</td>
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<tr>
<td>CCT</td>
<td>Conditional Cash Transfers</td>
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<td>Central and Western Region Fishmongers Improvement Association</td>
</tr>
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<td>Coastal Resource Center</td>
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<tr>
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<td>Development Action Association</td>
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<tr>
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<td>Friends of the Nation</td>
</tr>
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<td>Ghana Living Standards Survey</td>
</tr>
<tr>
<td>GoG</td>
<td>Government of Ghana</td>
</tr>
<tr>
<td>LEAP</td>
<td>Livelihood Empowerment Against Poverty</td>
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<tr>
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<td>Non-Governmental Organizations</td>
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<tr>
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<td>Netherlands Development Organization</td>
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<td>ToC</td>
<td>Theory of Change</td>
</tr>
<tr>
<td>URI</td>
<td>University of Rhode Island</td>
</tr>
<tr>
<td>USAID</td>
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ACKNOWLEDGEMENTS

This assessment would not have been possible without support from staff from the project partners under the USAID/Ghana Sustainable Fisheries Management Project (SFMP). Project partners who contributed to this assessment include the Netherlands Development Organization (SNV), the Central and Western Region Fishmongers Improvement Association (CEWEFIA) and the Development Action Association (DAA). Bakari Hardi Nyari and Samuel Fant Kombian from Monitoring and Evaluation at SFMP provided valuable input and oversight of the survey questionnaire and overall design of this assessment. This acknowledgement, however, would not be complete without acknowledging the enumeration team, which includes Hannah Antwi from CEWEFIA and Ibrahim Nassam from DAA for their hard work, collaboration and commitment during data collection. Justice Mensah from Hen Mpoano generously created the map of the study area. Support and technical input for this assessment was provided by Maurice Knight, Chief of Party and Dr. Brian Crawford, Project Leader.

Finally, this report recognizes the beneficiaries of the Ahotor stove who are also vulnerable households and thanks them for generously providing their time and candid responses during data collection.
EXECUTIVE SUMMARY

An assessment of the donation of an Ahotor stove on fishing households vulnerable to child labor and trafficking was conducted in 2017. The purpose of the study was to test the validity of the USAID Ghana Sustainable Fisheries Management Project’s (USAID/Ghana SFMP) theory of change for this intervention. The premise of the Theory of Change is that economic hardship, or poverty, caused by a steady decline in marine capture fisheries are drivers of child labor and trafficking in fisheries. Vulnerable households were identified as mainly single female headed households with low income and large numbers of children. Lack of economic support forces these households to sell or give away their children into fisheries slavery or force them to work at young ages instead of sending them to school. Interventions were designed to increase incomes in order to help households send their children to school instead of engaging them in fisheries-related work or send them elsewhere to be cared for by others. Selected vulnerable households were furnished with fuel-efficient stoves and provided training in their use, and were exposed to community level anti-child and labor trafficking behavior change communication campaigns to make this customary practice socially unacceptable.

The USAID/Ghana SFMP aims to support the Government of Ghana (GoG) to eradicate forced labor, end modern day slavery and human trafficking in the fisheries sector. In 2017, Ghana narrowly avoided being downgraded to Tier 3 by the United States Department of State’s annual Trafficking in Persons Report. Improving livelihoods of fisherfolk and fishing households is essential for providing a better world for children and families in Ghana’s fishing communities.

The Ahotor stove helped to improve livelihoods for some of the vulnerable households surveyed in this study. One third of the beneficiaries had shown increases in gross business revenue (as an indirect indicator of improved incomes), school attendance rates of their children doubled, and they reported a 50 percent reduction in incidences of sending their children away to work. These results support the validity of the theory of change model, yet other beneficiaries fell short, or did not economically benefit as intended as a result of implementation failure and certain criteria which were not fully recognized nor measured in this study. Criteria include access to land ownership and sufficient working or operational capital to purchase raw materials needed in order to use the Ahotor stove. In other cases, it was unclear if the beneficiaries were indeed vulnerable households and criteria for selection of those households that received stoves and training was also not explicitly defined. An expanded theory of change and specific recommendations for implementation improvements are provided based on this study.
SECTION 1: BACKGROUND

There are over 1.8 million children working as laborers in Ghana, including fisheries according to the sixth round of the Ghana Living Standards Survey 2012 (GLSS 6, 2012). The problem of child labor and trafficking is particularly prevalent in fishing communities in the Central Region of Ghana. In 2015, the SFMP conducted research to investigate the root causes of child labor and trafficking in the Central region. The study (FoN, 2015) revealed poverty, migration, and customary practices contributed to this problem in this region. Single, female-headed households with many children and dependents are particularly vulnerable to child labor and trafficking. Migration, fueled by seasonal availability of fish, leaves women to fend for themselves and their children, without money for school-related fees or sometimes, food. Traffickers, often times family members, come to offer relief by taking care of their children, but in some cases, children are not cared for, nor sent to school and sometimes forced into hazardous fisheries work in other regions such as the Lake Volta region or outside of Ghana.

Under the SFMP, vulnerable households were identified using a Household at Risk tool developed by the Netherlands Development Organization (SNV) and administered by two project partners, the Central and Western Fishmongers Improvement Association (CEWEFIA) and the Development Action Association (DAA). Both of these organizations are project implementing partners and women-focused organizations that have organizational mandates related to fishing communities and social welfare and implement project activities in the Central Region. The Household at Risk tool was administered to all but 2 respondents to determine their status as a household vulnerable to child labor and trafficking. Under the premise that economic hardship is the root cause of the problem for these vulnerable households, a livelihood intervention was targeted at a subset of vulnerable households identified as most likely to engage in such practices. This intervention was the provision at full subsidy of an Ahotor stove along with training of its use. The Ahotor stove is a fuel-efficient and more profitable improved fish smoking stove. Beneficiaries of the Ahotor stove also received a number of related trainings on the use of the stove, such as business skill development and hygienic fish handling. The theory of change, or purpose for providing a stove for vulnerable households was to increase their income and thereby reduce the risk of engaging their children in hazardous work or trafficking them. The theory of change is discussed in more detail in the next section.

In 2016, the Ahotor stove was constructed for 16 fish processors who were identified as vulnerable households in the Central region. This report assesses the impact of the provision of fuel-efficient stoves on vulnerable households. A field survey was conducted in November, 2017 among all 16 beneficiaries of the Ahotor stove. The purpose of this report is also to inform future interventions that are designed to benefit vulnerable households and reduce risk of child labor and trafficking in fishing communities in Ghana. Recommendations are provided based on the report findings.

1.1 Assessment Design

Since the number of vulnerable households provided with a livelihood intervention under the SFMP was small, or 16 households, the entire population of beneficiaries was targeted for interviews. Qualitative methods were used to collect data, including interviews with key informants such as project officers and through participant observation and semi-structured interviews with beneficiaries using a paper questionnaire located in the Appendix A. Households were deemed vulnerable and eligible for the Ahotor stove based on a Household
At-Risk survey questionnaire administered by project partners prior to receiving the stove. This tool is located in the Appendix B.

The survey included questions on socio-demographic information, stove usage such as its performance and constraints and socio-economic impacts of the stove in relation to child labor and trafficking. Primary measures used to assess impact were 1) attendance in school before and after receiving the Ahotor stove, 2) change in income, or additional income generating activities result of using the Ahotor stove and 3) change in perceptions of children working, being sent away or not attending school full-time. Secondary measures included frequency of migration (to other fishing communities), changes in perceptions toward sending children away from home to work or live with others and access to government-sponsored social programs such as Livelihood Empowerment Against Poverty (LEAP). In 2008, the government of Ghana introduced LEAP, a social protection or cash transfer program to help extremely poor, disadvantaged (including severely disabled persons) and vulnerable populations out of poverty by providing health, education and nutrition services. According to local and international poverty indices, poverty is prevalent in fishing communities in Ghana (Asiedu et al., 2013). This survey explored the extent to which vulnerable households are aware or already benefit from LEAP.

To assess impact, interviews were conducted near, if not adjacent to where the stoves were constructed. Interviews were conducted in Fante, the local dialect and translated to English by project staff. Interviews were conducted by staff from other project sites, not by those who provided the intervention to the beneficiary, to reduce the possibility of interviewer bias.

1.2 Theory of Change

This assessment explores the validity behind SFMP’s theory of change for economic interventions designed to reduce vulnerability of households at risk to engage in child labor and trafficking practices in fisheries in the Central region of Ghana. A baseline survey conducted in 2015 by Friends of the Nation among 762 households revealed root causes of child labor and trafficking in the Central Region (FoN, 2015). The study identified endemic poverty, large family sizes, customary practices, breakdown of family structure caused by migration, divorce or irresponsible parenting, lack of social amenities in fishing communities and single, female-headed households as primary causes of child labor and trafficking. As Ghana’s small pelagic fishery continues to decline, poverty rates among fishing households will increase, worsening the situation. A study conducted by Crawford et al. (2016) captured perceptions of prevalence and attitudes toward child labor and trafficking the fisheries sector among 716 individuals across four coastal regions in Ghana. The perception of prevalence of child trafficking was highest in the Central region. Both of these studies helped to inform the behavior change communications campaign and design of interventions. Under this project, the Ahotor stove was introduced as a livelihood intervention to households in fishing communities identified as vulnerable to child labor and trafficking to improve household income given that economic hardship is a major factor preventing children from attending school and instead, engaging them in fisheries-related work.

The primary purpose of this intervention was to improve income among vulnerable fishing households. This intervention did not directly address other drivers of child labor and trafficking such as large family sizes or low literacy and numeracy skills, nor did it directly link eligible households to social protection services such as LEAP. Beneficiaries were however all located in SFMP project communities and exposed to strong behavior change communication and awareness campaigns to change customary practices and attitudes toward child labor and trafficking. Many activities which included and involved local and regional government agencies such as the Department of Social Welfare which oversees the LEAP.
program. Community activities and campaigns included community child protection committees (CCPCs) who identify, provide counseling and advisory support to vulnerable households, radio programs and community action plans (CAPs). These activities and committees involved local governments and community leaders, including many from the Department of Social Welfare, to take measures to mitigate child labor and trafficking in their communities. A results chain based on the situational analysis is shown in Figure 1.

**Figure 1 Results chain framework for theory of change**

This study also examined the roll-out or implementation of this intervention, beginning with the use of tools to identify vulnerable households, types of trainings, construction and delivery of the Ahotor stove to beneficiaries.

### 1.3 Area of Study

The survey was conducted in 5 communities in the Central region of Ghana where beneficiaries were selected to receive an Ahotor stove (Figure 2). The Ahotor stove was constructed in or near these communities based on compliance with environmental standards established by the USAID/Ghana SFMP.

**Figure 2 Map of study sites in the Central Region**
1.4 Sampling

Fifteen respondents from 5 communities in the Central Region were interviewed even though sixteen beneficiaries received the stove. One respondent interviewed from Winneba was not the beneficiary, nor was using the Ahotor stove, and therefore the survey questionnaire was not administered to this person. The sample size used for analysis was 15. Two of the fifteen respondents did not recall having the Household at Risk tool administered to them but based on the interview and their response to the interview questions, they met the criteria of a household at risk and were included in the sample.

<table>
<thead>
<tr>
<th>Respondents by Community</th>
<th>Sample</th>
</tr>
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<tbody>
<tr>
<td>Winneba</td>
<td>3</td>
</tr>
<tr>
<td>Apam</td>
<td>2</td>
</tr>
<tr>
<td>Mumford</td>
<td>3</td>
</tr>
<tr>
<td>Moree</td>
<td>3</td>
</tr>
<tr>
<td>Elmina</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### SECTION 2: RESULTS

Results are grouped by section according to the questionnaire which includes socio-demographic information, beneficiary’s usage of the Ahotor stove, socio-economic impact of the Ahotor stove in relation to SFMP’s theory of change and personal observations by the enumerators.

#### 2.1 Socio-demographic information

Respondents were asked their age, if known, the general status of their health and household size, including number of children and dependents. Results are shown in Tables 2-6 and Figures 2-5.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Median</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table 2 Descriptive statistics for age of respondent (N=13)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
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<td>26</td>
<td>77</td>
<td>45</td>
<td>14.23</td>
</tr>
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</table>

The age of respondents varied, the mean was 47 years. Some respondents could not remember their age, therefore n=13. The average number of adults living in the household was slightly less than 6 persons as shown in Table 3. Sixty-seven percent of respondents stated they were head of household.
The number of biological children and dependents living in the household also varied. The mean number of children living in vulnerable households of stove beneficiaries is slightly less than 5 persons, as shown in Table 4. The ages of the children varied from the youngest being 1 and the eldest 35 years. Respondents with older children stated they contribute to household expenses or pay rent for a room to live in. Some respondents could not remember the ages of their children.

Table 5 Descriptive statistics for number of dependents in the household (N=15)

<table>
<thead>
<tr>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Median</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.00</td>
<td>0</td>
<td>10</td>
<td>2</td>
<td>3.00</td>
</tr>
</tbody>
</table>
The most important source of livelihood for stove beneficiaries was fish processing (smoking, drying) and fish marketing as shown in Figure 4. Other sources of income include working as a laborer for a family member, usually smoking fish, petty trading of goods ranging from selling water to clothes or being a seamstress.

At times, fish processors are known to migrate in search of fish to process. The duration, or length of stay for beneficiaries who migrate in search of fish is captured in Figure 5. The destination for many fish processors were other fishing communities in other regions, such as Sekondi in the Western region. The reason why they migrate is because family members who fish are landing their catch in other communities. Some beneficiaries also migrate to labor for other fish processors. For those who migrate, The Ahotor stove is not used by anyone else when beneficiaries migrate, some stated it was because they have not trained anyone else on it, another respondent feared they would not care for it well and another one stated they simply cover it up while they are away.
Respondents were asked if any child, attending school full-time was also working. The majority, or 60 percent, stated they were not working. However, 40 percent stated their children were working while attending school (Figure 6). The type of work performed by children includes helping process fish such as arranging fish on the trays, lifting trays on the stove, or sweeping and washing cooking utensils. These activities are conducted before and after school and during school vacations. While there was data of children working before and after receipt of the stove, beneficiaries did state their view of children going to school full-time instead of working changed as a result of receiving the stove and subsequent trainings. One respondent stated:

“allowing children to work, interferes with their learning, the child will come home late and cannot do her school work,”

another stated:

“school helps shape their future, in the house they do nothing,” while another commented that “it is shameful not to send your kids to school in this community.”

**2.2 Usage of the Ahotor Stove**

The Ahotor stove was constructed for beneficiaries in 2016. Some stoves were missing components, such as the fuel wood grate or drip collector. As a result of this and previous
assessments, this has been addressed and rectified yet 4 beneficiaries were still not using the Ahotor stove at the time of the survey. Some of the reasons for not using the stove were lack of working capital to purchase the raw material needed to smoke (fish and fuel wood) and current status of the fishery, which is declining. Respondents who are fish processors are used to buying fish on credit (to process and sell). However, as a result of the decline of the fishery and lack of supply, fishermen are no longer extending credit to fish processors and many fish processors simply cannot advance payment for fish to process and sell. All but one beneficiary had previous experience smoking fish. Seventy-three percent of respondents (n=15) stated they had previously owned a fish smoking stove, such as the Chorkor or traditional round stove made of mud or metal pictured below. Respondents who had not personally owned a fish smoking stove before receiving the Ahotor stove used someone else’s stove for free from a relative (sister), or rented the stove (including trays) from another fish processor. Reasons for not previously owning a stove was attributed to insufficient capital to buy fish to process and lack of a regular customer who buys smoked fish.

Figure 7 Chorkor stove (left) and Traditional round stove (right)

In addition to Ahotor, beneficiaries own other fish smoking stoves such as Chorkor and traditional round stoves. The number of stoves varied as shown in Figure 8.

Figure 8 Number of stoves owned by beneficiaries
The Ghana/SFMP has ongoing trainings on the usage of the improved, fuel-efficient *Ahotor* stove, in addition to other trainings related to business administration, hygiene and handling of fish post-harvest and awareness prevention of child labor and trafficking. Eighty percent of beneficiaries (n=15) attended trainings. Beneficiaries stated they learned various skills from the trainings, such as:

- learning to keep the stove and processing area clean,
- handle fish hygienically by washing fish before smoking,
- using ice to store large volumes of fish and,
- practical business skills such as keeping track of inputs and expenses so they know if they are making a profit from their sales.

The frequency of use of the *Ahotor* stove is shown in Figure 9. The frequency categories were determined by use, for example, often meant multiple days per week or whenever they smoke fish, occasionally meant a few times per month, rarely meant the stove was used in the last few months of months and never meant that the stove had never been used or only demonstrated once. The lack of usage is notable and partially due to missing components (3 respondents), or lack of financial resources (3 respondents) to buy necessary inputs to smoke fish, such as fish and fuel wood. Two respondents stated their stoves were not in use because they did not own the land on which the stove was built. In one case, the stove was taken apart because the land was sold. The respondent still has all the components of the stove and is looking for land to rebuild it. In the other case, the respondent is paying rent (60 cedis per year, or ~ 14 USD) to keep the stove on someone else’s land. This issue is further discussed in subsequent sections and in the recommendations section of this report.

![Figure 9 Frequency of stove use](image)

Forty percent of beneficiaries stated they had no challenges using the *Ahotor* stove, whereas 27 percent stated challenges with its use and 33 percent did not respond. Among the challenges stated included design issues such as uneven cooking temperatures, particularly in the middle of the stove, insufficient capacity due to the number of the trays, and a smaller entrance to place firewood was believed to have caused the smoking process to slow down compared to other stoves used in the past, such as the *Chorkor* stove.
Figure 10 reveals problems encountered which resulted in lack of use. Figure 11 shows improvements made to the stove as a result of benefiting from its use, a roof was built to protect it from the rain from revenue earned using the Ahotor stove.

Figure 10 Abandoned stove (left) and demolished stove (right) due to lack of ownership of land

![Abandoned stove (left) and demolished stove (right) due to lack of ownership of land](image1)

Photo credit: Kristine Beran

Figure 11 Construction of a roof (left) over the Ahotor stove due to improved revenues

![Construction of a roof (left) over the Ahotor stove due to improved revenues](image2)

Photo credit: Kristine Beran
Table 8 illustrates the status of each stove. Respondent number nine had received the Ahotor stove but had no experience processing fish, nor had land to build the stove. Another fish processor offered the beneficiary land to build the stove. The beneficiary has not been seen since the stove was built and the stove is not currently in use due to broken trays. Respondent number 11 stated that the intended beneficiary moved away from her village (Apam), therefore, her mother was interviewed. Respondent number fifteen is the aunt of the beneficiary who is blind. The beneficiary rents the stove to her aunt for 20 Cedis/month (~5 USD) to generate income. Problems related to construction or delivery of the stove and its components has been communicated to project partners through the Chief of Party to remedy.

<table>
<thead>
<tr>
<th>Number</th>
<th>Partner</th>
<th>Community</th>
<th>Status of Stove (reason)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CEWEFIA</td>
<td>Elmina</td>
<td>In use</td>
</tr>
<tr>
<td>2</td>
<td>CEWEFIA</td>
<td>Elmina</td>
<td>In use</td>
</tr>
<tr>
<td>3</td>
<td>CEWEFIA</td>
<td>Elmina</td>
<td>Demolished (no land)</td>
</tr>
<tr>
<td>4</td>
<td>CEWEFIA</td>
<td>Elmina</td>
<td>Not in use (no land)</td>
</tr>
<tr>
<td>5</td>
<td>CEWEFIA</td>
<td>Moree</td>
<td>In use</td>
</tr>
<tr>
<td>6</td>
<td>CEWEFIA</td>
<td>Moree</td>
<td>In use</td>
</tr>
<tr>
<td>7</td>
<td>CEWEFIA</td>
<td>Moree</td>
<td>Not in use (no fat collector)</td>
</tr>
<tr>
<td>8</td>
<td>DAA</td>
<td>Winneba</td>
<td>Not in use (lacks capital)</td>
</tr>
<tr>
<td>9</td>
<td>DAA</td>
<td>Winneba</td>
<td>Not in use (broken trays)</td>
</tr>
<tr>
<td>10</td>
<td>DAA</td>
<td>Winneba</td>
<td>Not in use (lacks capital)</td>
</tr>
<tr>
<td>11</td>
<td>DAA</td>
<td>Winneba</td>
<td>Not in use (no fat collector)</td>
</tr>
<tr>
<td>12</td>
<td>DAA</td>
<td>Mumford</td>
<td>In use</td>
</tr>
<tr>
<td>13</td>
<td>DAA</td>
<td>Mumford</td>
<td>Not in use (lacks capital)</td>
</tr>
<tr>
<td>14</td>
<td>DAA</td>
<td>Mumford</td>
<td>In use</td>
</tr>
<tr>
<td>15</td>
<td>DAA</td>
<td>Apam</td>
<td>In use</td>
</tr>
<tr>
<td>16</td>
<td>DAA</td>
<td>Apam</td>
<td>In use</td>
</tr>
</tbody>
</table>
2.3 Socio-economic impacts of the Ahotor stove on vulnerable households

Results in this section aim to address the socio-economic impact of the Ahotor stove in relation to SFMP’s theory of change. The theory of change acknowledges that economic hardship is one of the primary root causes of child labor and trafficking. By providing fish processors a fuel-efficient fish smoking stove along with training of its use will increase their income and help pay for school-related fees to keep all their children in school, thereby reducing likelihood their children will be subjected to illegal and harmful labor practices or be trafficked. This results chain refers to Figure 1.

2.3.1 Changes in income

Respondents were asked if the Ahotor stove changed their level of income, if at all. One third stated the stove increased their income levels (Figure 12). Increases were attributed to fuel wood savings, better prices (during the lean season) for better quality smoked fish which yields a slightly better price at the market, or sells faster than fish smoked by the Chorkor stove. These attributes are consistent with benefits described by other users of the Ahotor stove. One third of respondents could not explain, in monetary terms if the stove changed their level of income because they either did not keep written records or they did not have the capacity to quantify difference in income. Forty percent (n=6) of respondents who attended stove demonstration trainings specifically stated that they noticed they had consumed less fuel wood using the Ahotor stove over the Chorkor stove. Some stated they had not used the stove since receiving it and therefore could not state if income was increasing, so in these cases it clearly did not change income for the respondents. One respondent stated her level of income decreased because for one, she was not using the stove because it did not come fully assembled (it was missing a drip collector) and also it was built on land that did not belong to her so she has to pay 60 cedis (~14 USD) per year to rent the land where the stove was constructed. This respondent says she plans to rent the stove once the drip collector is installed to compensate for the rent she is paying and to earn some income from it. Four respondents stated their level of income had not changed as a result of receiving the Ahotor stove. Despite high levels of poverty in fishing communities, none of the respondents stated they benefited from LEAP, a poverty alleviation program of the Government of Ghana targeted at poor vulnerable households. This will be discussed in more detail in the recommendations section of the report.

Figure 12 Change in income after obtaining the Ahotor stove

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Increase</th>
<th>Decrease</th>
<th>Same</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 12 Change in income after obtaining the Ahotor stove
Respondents also stated they encountered challenges with purchasing the raw materials (fish and fuel wood) needed to use the stove. The main challenge was lack of working capital, or cash to purchase fish and fuel wood. Given poor fishing conditions, fishermen were no longer extending credit to fish processors in order to get fish to process, instead, fishermen prefer to sell fish to processors who pay cash. This is a hardship for vulnerable households who used to be able to purchase fish from boats on credit. The problem is worsening as fish catch and supply dwindles. Other respondents simply stated they did not have the capital, or cash to spend on fish to smoke. Of those that responded the question (by eliminating the don’t know response), 50 percent of the beneficiaries reported positive improvements in income, which was the desired result of the intervention. Those who stated their income was the same (n=4) were also not using the stove regularly. One of the four respondents could not ascertain or calculate differences in income or profit, she could only visibly see that she was processing twice as much fish, which could be inferred to suggest increased income. Four of the five respondents who answered “don’t know,” were either not using the stove regularly and/or earning more income from other sources such as petty trading. One of the five respondents were unable to calculate change in income and stated, “I keep track of my expenses in my head because my daughter is not around to help write down the expenses.” The same respondent also stated that she “mixes fish smoked by the Chorkor and the Ahotor stove and sells it all at the same price at the market.”

2.3.2 Changes in attitudes and behaviors concerning child labor and trafficking

In addition to obtaining a stove, and occupational and business training interventions, households vulnerable to child labor and trafficking were likely exposed in the SFMP project sites to community level behavior change communication messaging to sway people’s attitudes and practices that child labor and trafficking is socially unacceptable as described in the theory of change. The interviews did not ask if they recalled attending any of the project supported community durbars or theatres on this topic or heard radio programs broadcast in the communities, but it is reasonable to assume they likely did, although subsequent assessments should incorporate this question into the interviews.

Respondents were asked if they sent their children away to work or be cared for by others before receiving the stove and after receiving it. Results are shown in Table 9. While the results suggest a reduction in child trafficking after receiving the stove, the difference was not statistically significant. However, given the small sample size we should rule out that this may be a real difference but could not be detected statistically in this study. Given this caveat, with the results shown in Table 7 and the responses to open ended questions summarized below, they tend support the theory of change discussed in Section 1.1 and results chain shown in Figure 1.

<table>
<thead>
<tr>
<th>Did you send your children away before receiving the Ahotor stove?</th>
<th>Did you send your children away after receiving the Ahotor stove?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Table 7 Percent of households who sent children elsewhere before and after the Ahotor stove (n=15)
One respondent stated before receiving the Ahotor stove she sent her 10-year-old child away to work in fisheries in the Volta region with family relatives, and believed because they went with family, it was not considered child labor or trafficking. The child came back after two years working in fisheries in the Volta region. The respondent’s views have changed and since receiving the Ahotor stove, has not sent her children away. She believes every child should go to school, she expressed shamefulness for not sending her children to school. Other respondents stated that because they do not have capital to buy fish to smoke, some of their children live away from the home, in Accra or Takoradi, for example with family members. Other children were sent outside of Ghana including Liberia and Cote D’Ivoire. Only one respondent stated they received payment, or 600 cedis for allowing their child to go live with someone else.

When asked if their view of sending children away has changed, respondents overwhelmingly stated it had, positively (93%). One respondent stated no, it hadn’t, and that she would give her second child away when she got a little older, but only to family members, not if she did not know the person. Those with a changed, positive view have asked their family members to bring their children home or they will go to the police. Others stated that because of how they have seen their children mistreated, they will never let them leave again. One respondent stated, “she never saw any improvement in the child’s life after they came back, so it is better they stay with her.” Even though respondents lack the financial means, they stated they realized they need to care for their children, by laboring for others if necessary.

2.3.3 Changes in attitudes and behaviors concerning sending children to school

Respondents were asked if every child of school-going age in the household attended school before receiving the Ahotor stove and after receiving it (Table 8). Partial attendance meant some of the children went to school, while others did not. The reasons are provided in Table 6. The cost of school-related fees for one child is 50 cedis (~12 USD) per month. A much greater number of respondents, almost double, state sending their children to school after the receiving the stove. The difference is statistically significant using Fisher’s Exact test (Pearson Chi-square = 11.063, df = 4, p-Value = 0.026, n=15). The percent of those partially attending school lowered after receiving the stove. The four respondents who did not send their children to school after receiving the stove had mostly abandoned using the stove stating they did not have enough working capital to purchase fish in order to use the stove. Therefore, they could not send their children to school despite receiving the stove.

<table>
<thead>
<tr>
<th>Percent of households sending children to school <strong>before</strong> receiving the Ahotor stove</th>
<th>Percent of households sending children to school <strong>after</strong> receiving the Ahotor stove</th>
</tr>
</thead>
<tbody>
<tr>
<td>27%</td>
<td>53%</td>
</tr>
<tr>
<td>Partial attendance (33%)</td>
<td>Partial attendance (20%)</td>
</tr>
<tr>
<td>i. No money to pay for school fees (or only for 1 child not all)</td>
<td>iv. Elderly child refused to attend school</td>
</tr>
<tr>
<td>ii. During migration, family members caring for the children do not take them to school</td>
<td>v. Only the older children go to school, not the younger ones because they cannot pay for them all</td>
</tr>
</tbody>
</table>
Percent of households sending children to school **before** receiving the *Ahotor* stove | Percent of households sending children to school **after** receiving the *Ahotor* stove
--- | ---
 iii. Some of the children have been given to relatives to live elsewhere

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SECTION 3: DISCUSSION

The livelihood interventions for vulnerable households yielded mixed results. The provision of the *Ahotor* stove and related training did economically benefit some of the fish processors who were able to use the stoves and had working capital to diversify their livelihoods and increased their income as a result. School attendance rates doubled after receiving the *Ahotor* stove. Other fish processors stated some indirect benefits—such as increased processing capacity—which could have resulted in income gains but given low numeracy and literacy skills, some processors were not able to quantify income benefits. Respondents stated overwhelmingly that their views of sending children away had positively changed. These views also translated into action; a 50 percent reduction in children sent away by beneficiaries. However, positive socio-economic impacts were not fully realized by all beneficiaries. This is due in part to challenges with effective implementation, and in part due to the intervention design or theory of change. These issues are discussed below:

3.1 Provision of the stove and component parts

In some cases, stoves were not completely constructed with parts missing that were never provided to the beneficiary – drip collectors and fire grates. These stoves were left idle and not yet in use at the time of this assessment. This illustrates a problem with effective implementation of the intervention.

3.2 Training in the use of the stove

Some respondents reported that one challenge of using the stove was the small opening for fuel wood burning chamber, which is intentionally designed this way in order to reduce consumption of fuel wood while smoking. This suggests that the trainings provided were insufficient for the beneficiaries to fully understand the new *Ahotor* stove design and why it is different from the *Chokor* design. Additional stove demonstration trainings would help beneficiaries understand this and other features of the *Ahotor* stove, such as its roof with chimney.

3.3 Lack of capital to purchase fish and other inputs

Some respondents reported a lack of capital to buy needed processing inputs including fish and fuel wood, and this resulted in the lack of economic impact in several cases. Lack of capital is a challenge for some of these women due to high poverty resulting in a lack of savings and business capital. It is also exacerbated due to the declining fishery where fish processors can no longer purchase fish on credit, a practice they are accustomed to. As a result, fish processors must have cash or sufficient working capital to buy fish to process and buy fuel wood for smoking and drying the fish.

3.4 Ownership of land

Two processors did not own the land on which the stove was constructed. One of the stoves had to be demolished and is being built elsewhere. The other respondent is paying rent to keep the stove on someone else’s land. There was no criterion in the selection of beneficiaries that they must have access to land on which to put the donated stove. For those without land, arrangements were made to place the stove elsewhere but this was not an effective solution in these two cases. Land ownership should be a criterion for receiving the *Ahotor* stove, or any fixed asset. Many fishing households, especially poor households do not own land. In fact, the SFMP baseline survey, only 20 percent of fishing households owned agricultural land and only 30 percent owned non-agricultural land (e.g. property on which a house is constructed) (Crawford et al. 2016).
3.5 Selection of beneficiaries

While all the beneficiaries met the criteria as vulnerable households, it is not clear how those that received stoves among the overall pool of eligible beneficiaries were selected. In some cases, beneficiaries implied it was due to personally knowing the Executive Director of the implementing partner, which could be viewed negatively as favoritism or elite capture of benefits. In one case, the beneficiary had no prior experience with fish smoking and migrated away from the location where she was given a stove, which was then utilized by a relative. In addition, as noted above, there was no criterion that the beneficiary needs to own the land where the stove would be constructed. More thought needs to be given to selection criteria that address issues noted above.

3.6 Impact on income and livelihoods

The change in income as a result of receiving the Ahotor stove has not been significant for all respondents (Figure 12). Only one third of all respondents (n=5) stated an increase income as a result of receiving the stove. Four respondents stated their income was the same attributing this to not having used the stove due to poor fishing conditions and lack of credit to purchase fish or as one respondent stated, “fishermen are not landing fish, so there is nothing to process.” However, five respondents did not know if their income had changed or not, meaning one third of respondents could not answer this question (n=5).

Those who did benefited from improved income from this livelihood activity have expanded their existing or diversified their livelihood options (n=5). Two respondents made investments in the stove by building a roof over it so that they can process fish even in the rain, which coincides with the peak fishing and processing season. One respondent was able to cement the floor around the stove to make the working environment cleaner, which she learned about in the stove demonstration trainings. One respondent purchased a freezer to sell chilled water and another respondent expanded her livelihood through petty trading (of water).

Those who did not see their income change (n=4), or decrease (n=1) stated no economic benefit from the stove. One of the four respondents who did not see a change of income did state however that owning an Ahotor stove increased her smoking capacity, with two stoves (a previous model and the Ahotor stove) she is able to smoke twice as much fish as before. While she stated no income change, an expanded business would likely result in additional income. Literacy rates are low in fishing communities. Crawford et al. (2016) found that only 15 percent of women surveyed in fishing communities could read. Illiteracy combined with low numeracy skills could prevent fish processors from being able to track their income or calculate profits so they are not certain if their incomes improved even if they did in fact.

The other three respondents who had not seen a difference in their income as a result of the Ahotor stove were also not regularly using the stove, mainly due to lack of working capital to purchase fish to smoke. The majority of respondents owned a stove previous to receiving the Ahotor stove and had experience smoking fish, either on those stoves or working as a laborer for someone else. It was reported by other fish processors that one beneficiary, who could not be interviewed because she no longer lived in the community, had no previous experience smoking fish. The stove was adopted by another fish processor.

3.7 Impact on attitudes and behaviors concerning in child labor and trafficking

Beneficiary exposure to the anti-child labor and trafficking behavior change communication campaign activities and messaging of the project was not directly measured in this survey and a weakness of the design. However, the presence of these interventions in the beneficiary communities suggests they were likely exposed to such messaging in addition to indirect
messaging via other project trainings or through informal discussions with project staff or from interactions with other members of the community, including community-based anti-child labor and trafficking advocates fielded by the project. These exposures are likely to have influenced beneficiary attitudes and behaviors regarding child labor and trafficking that are described below. Future assessments should use a revised questionnaire to more fully test casual links in attitudinal and behavior changes on child labor and trafficking with exposure to messages provided in the communications campaigns. As noted below, there was no statistical relationship detected in this assessment between increased incomes and changes in attitudes on child labor and trafficking. While increased income may have been a contributing factor, we infer the changes described below are more likely the result of the communications campaigns implemented in the beneficiary communities.

The anti-child labor and trafficking behavior change communication messaging targeting vulnerable households appears to have had a positive impact with regards to changing views of sending children away. Overwhelmingly, 93 percent of respondents stated their views on this topic had positively changed. Only 27 percent of respondents stated they sent their children away after receiving the Ahotor stove compared to 60 percent saying they did before receiving it. However, the difference was not statistically significant which could be attributed to the small sample size.

There was no statistically significant correlation between change in income and change in attitude toward sending children away to work or be cared for by others in this sample. This suggests that economic improvements alone may be insufficient to change attitudes about trafficking children. However, while, the study was unable to statistically infer a direct causal relationship here, the small sample size could mean that the relationship exists, but could not be statistically confirmed in this study. Based on other opened ended responses of participants, some level of direct link seems to be valid with no strong qualitative evidence to the contrary. Regardless, it does seem reasonable to assume that beneficiaries must have been influenced by the behavior change communications that affected their attitudes and behavior change on this topic.

3.8 Changes in attitudes and behaviors about keeping children in school

More respondents stated that they sent their children to school after receiving the Ahotor smoker compared to before receiving the smoker. Respondents stated that even though they lack the financial means to send all their children to school (evidenced by partial school attendance in Table 8), they stated that they needed to care for their children themselves even if that meant laboring for others. Some respondents stated that paying for school-related fees was still a barrier for keeping all their children in school. The results suggest that the project, either through provision of the stove and trainings, or the community communications campaigns, or both, changed attitudes and behaviors regarding keeping children in school.
SECTION 4: RECOMMENDATIONS

This section provides recommendations for future interventions designed to prevent child labor and trafficking among vulnerable households based on this formative experience to date.

4.1 Improving implementation of the interventions through more visits and personal interactions with project extension staff and additional training

To verify that all missing components have been replaced and have been adequately addressed, an intensive monitoring approach is recommended. Project partners working in these communities need to visit the beneficiaries in person and more regularly to verify each stove is fully assembled and in use. Project partners should also give each beneficiary a “refresher” tutorial, using a small sample of fish, provided by the project partner to demonstrate how the Ahotor stove is intended to be used and to highlight its attributes, such as fuel efficiency and producing better quality product which could yield better prices if sold as such. Individualized tutorials could also be organized as a group demonstration but it is more effective if each beneficiary receives a tailored tutorial based on their level of understanding and skills.

With regards to the occupational and business training, this target audience may require more support or more intensive trainings in order to more fully understand business practices and ways to assess income generation and profits. Additional trainings, particularly on literacy and numeracy skills and additional stove demonstrations are recommended to help beneficiaries realize profits, whether it is from fuel wood savings or better prices as a result of smoking better quality fish using the Ahotor stove. Beneficiaries could be encouraged to rent their stoves to other fish processors as an income generator if they do not use or fully utilize it. These renters may then also realize the benefits and positive attributes of the stove and increase demand for the new design.

4.2 Link beneficiaries to existing social programs

Households vulnerable to child labor and trafficking are poor. Economic hardship is one of the reasons children do not attend school and find themselves doing hazardous work instead. Addressing the economic hardships of vulnerable households is still seen as a key component of the theory of change and intervention strategy. However, an expanded intervention approach should consider linking beneficiaries to programs where they can receive access to more social programs that offer basic health, family planning, nutrition, and education services and or income support which can relieve some of the economic burden.

Increasing the success rate of improved incomes requires additional financial support and training. This success rate of increasing income might be improved through the following ways:

4.3 Provide seed capital for those who need it

Financial support is needed to help beneficiaries who lack working capital to purchase fish and fuel wood to process fish. Other than the lack of delivery of a complete stove, this was likely the second most important factor limiting success of the intervention. This recommendation is further discussed in the next section.

4.4 Proposal for adding a conditional cash transfer component to the existing package of interventions

A Conditional Cash Transfer (CCT) component should be considered to help address the frequently raised issue of lack of capital for business operations which hampered several of
the beneficiaries’ ability to take full advantage of the stove for income generation. CCTs and unconditional cash transfers are used for socio-economic assistance to poor and vulnerable households throughout the world as well as in Ghana with relatively good results. For instance, the LEAP program provides a monthly unconditional cash transfer and free access to health services to support economically disadvantaged households in Ghana (LEAP, 2016). The program is implemented by the Ministry of Gender, Children and Social Protection which is also the lead Ministry tasked to address child labor and trafficking issues in Ghana. A LEAP program evaluation demonstrated positive impacts on children’s schooling, food security of female headed households, and an increase in likelihood of savings and debt repayments particularly among single female headed households (Handa et al., 2013). It is not specifically directed at poor fishing households, but intended beneficiaries include single parents (including female headed households) with vulnerable children; not unlike households vulnerable to child labor and trafficking. Program criteria could be expanded to specifically include these vulnerable fishing households.

As a potential policy initiative, linking households vulnerable to child labor and trafficking in fishing communities to LEAP benefits should be explored as a means of reducing child labor and trafficking in fisheries. There is ample evidence such programs can work. An evaluation in Kenya found that cash transfers to households with orphans and vulnerable children reduced child labor, a specific objective of the program (Asfew, 2014), and similar to the problem the SFMP is trying to address with the stove grants. This program also had a positive and significant impact on household beneficiary food consumption, accumulation of productive assets and on formation of non-farm enterprises, especially among females.

Results from a randomized experimental design in Uganda demonstrated that after four years of cash transfers, increases in female incomes for beneficiaries were 84 percent greater than female controls and a 31 percent gain relative to male controls (Blattman et al., 2013). The study concludes this provides strong evidence for the economic case to promote cash transfers to young, poor and unemployed, including women as a means to boost incomes. A Philippines program on conditional cash transfers demonstrated improved school enrollment of children aged 3-11 and reduced child stunting among the beneficiary group (Chaudhury et al., 2013).

These studies show positive results on income, school attendance and reduced child labor; precisely the type of results SFMP is trying to achieve with Ahotor stove donations to households vulnerable to child labor and trafficking.

Given the findings of successful cash transfer impacts in Ghana and elsewhere in Africa and the world, a very small conditional cash transfer pilot trial is recommended to be supported by SFMP. Lack of working capital prevented many of the vulnerable household beneficiaries from purchasing raw materials needed to take full advantage of the stove donation. This situation is only worsening as the fishery continues to decline. To help beneficiaries overcome the lack of initial working capital, one recommendation is to provide them a cash transfer monthly, over six months, with the condition they use it to purchase fish to process and sell to get their fish processing businesses started. It could also be conditioned on its use to keep their children in school. This would help beneficiaries gain familiarity using the stove and also provide financial resources they lack to get started in the business, a key constraint to lack of impact among some of the current beneficiaries.

Beneficiaries should be randomly selected from a list of households vulnerable to child labor and trafficking already identified but who have not received any SFMP benefits to date. Another option would be to provide the cash transfer to existing beneficiaries that expressed lack of working capital as a constraint. These households would receive an Ahotor stove and
participate in the on-going trainings for business development offered by CEWEIA and DAA. Twice monthly, project partners would visit with each beneficiary, check that their stove was built properly and complete, increasingly equip them with more business skills, as well as check and see if their children are in school, a condition of participation.

A budget to implement this recommendation is provided in Figure 13. The budget was based on cost of fish, fuel wood and school-related fees obtained during the survey. The monthly cash transfer of 450 Cedis is higher than LEAP support levels of 212 Cedis monthly for a family of four (LEAP, 2016). For this pilot, 6 beneficiaries are suggested; 3 for DAA and 3 for CEWEFIA. In this very simple design, a monthly cash transfer over 6 months would be provided instead of three years under LEAP. Extension officers would visit beneficiaries twice monthly. The costs below assume no additional budget is needed for beneficiary stoves and associated trainings.

**Figure 13 Cash transfer pilot budget**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit cost</th>
<th>Months</th>
<th>No Households/Visits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly cash transfer to buy fish and fuel wood, pay school fees</td>
<td>450</td>
<td>6</td>
<td>6</td>
<td>16,200</td>
</tr>
<tr>
<td>(per vulnerable household)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEWEFIA program officer travel and per diem x 2 visits/month</td>
<td>100</td>
<td>6</td>
<td>2</td>
<td>1,200</td>
</tr>
<tr>
<td>DAA program officer travel and per diem x 2 visits/month</td>
<td>100</td>
<td>6</td>
<td>2</td>
<td>1,200</td>
</tr>
<tr>
<td>Grand total (cedis)</td>
<td></td>
<td></td>
<td></td>
<td>18,600</td>
</tr>
</tbody>
</table>

A very simple formative evaluation tool can be designed to assess the impact of this small trial. It is suggested that the M&E team conduct semi-structured interviews with beneficiaries at the end of cash transfer period and 3 months after cash transfers end. The assessment can answer the following questions:

- To what extent has the beneficiary been able to use and Ahotor stove for a fish smoking business operation? Why or why not?
- If operating, on average, how much gross revenue and profit is generated daily?
- To what extent are children kept in school over the pilot period? Why or why not?

These recommendations will further test a theory of change model which aims to offset economic hardship and increase income to prevent vulnerable households from engaging their children in hazardous work, or trafficking.
SECTION 5: REFERENCES


## SECTION 6: APPENDIX A

**QUESTIONNAIRE OF IMPACT EVALUATION OF AHOTOR OVEN ON VULNERABLE HOUSEHOLDS**

### SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

<table>
<thead>
<tr>
<th>Date of Interview</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GPS Coordinates</th>
<th>Longitude:</th>
<th>Latitude:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy:</td>
<td>Elevation:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Beneficiary</th>
<th>Status of your health (duration of illness):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many persons live in this household?</th>
<th>Number of males ( ), Number of females ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age(s) and number of biological children?</td>
</tr>
<tr>
<td></td>
<td>Age(s) and number of dependents?</td>
</tr>
<tr>
<td></td>
<td>Head of Household: Male ( ), Female ( )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Did you complete a households-at-risk survey?</th>
<th>Yes: ______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No: ______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you live in this household all year round or do you migrate to other communities?</th>
<th>Explain:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>During migration, is your stove used? (by who, collect fee)</th>
<th>Explain:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What are the major livelihood activity(ies) this household is involved in?</th>
<th>None ( ), Fishing ( ), Fish smoking ( ), Fish marketing ( ), Other sources of income:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Which livelihood activity is most important to you? (income earned to support livelihood)</th>
<th>List most to least important:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Before Ahotor, was every child of school-going age (4-16) in the household attending school?</th>
<th>Yes ( ), No ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>If no, why?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If yes, who pays the school related expenses?</th>
<th>Father ( ), Mother ( ), Relative, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, specify:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After Ahotor, is every child of school-going age (4-16) in the household attending school?</th>
<th>Yes ( ), No ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>If no, why?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If yes, who pays the school related expenses?</th>
<th>Father ( ), Mother ( ), Relative, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, specify:</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION B: STOVE USAGE

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before <em>Ahotor</em>, did you own a fish smoking stove?</strong></td>
<td>Yes ( ), No ( )</td>
</tr>
<tr>
<td>If no, did you use someone else’s stove to smoke fish? (explain arrangement, did they have to pay?)</td>
<td>Explain:</td>
</tr>
<tr>
<td>If yes, how many fish smoking stoves do you own now?</td>
<td>Number ( )</td>
</tr>
<tr>
<td></td>
<td>Type(s) of stove:</td>
</tr>
<tr>
<td>When did you receive the <em>Ahotor</em>?</td>
<td>How many months ago:</td>
</tr>
<tr>
<td>What sort of trainings did you receive before getting <em>Ahotor</em>? (business, fire, H&amp;H)</td>
<td>Explain:</td>
</tr>
<tr>
<td>What did you learn from the trainings?</td>
<td>Explain:</td>
</tr>
<tr>
<td>How often do you use the <em>Ahotor</em>?</td>
<td>( ) days per week</td>
</tr>
<tr>
<td></td>
<td>( ) times per month</td>
</tr>
<tr>
<td></td>
<td>( ) months ago</td>
</tr>
<tr>
<td></td>
<td>( ) don’t use it at all</td>
</tr>
<tr>
<td>If you do not use it, why?</td>
<td>Explain:</td>
</tr>
<tr>
<td>Do you have any challenges with the use of the <em>Ahotor</em> oven?</td>
<td>Yes [ ]</td>
</tr>
<tr>
<td></td>
<td>No [ ]</td>
</tr>
<tr>
<td>If yes, are there any ways you can think of to improve <em>Ahotor</em> stove? (prompt use a picture of <em>Ahotor</em> to guide this question)</td>
<td>Explain:</td>
</tr>
<tr>
<td>Question</td>
<td>Response</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Did you smoke fish before you got the <em>Ahotor</em> stove?</td>
<td>Yes ( ), No ( )</td>
</tr>
<tr>
<td>If yes, what are the differences now that you have the <em>Ahotor</em> stove?</td>
<td>Explain:</td>
</tr>
<tr>
<td>What has changed in your life with the <em>Ahotor</em>?</td>
<td></td>
</tr>
<tr>
<td>Has your income changed with the <em>Ahotor</em> stove?</td>
<td>About the same, increase, decrease:</td>
</tr>
<tr>
<td>Explain:</td>
<td></td>
</tr>
<tr>
<td>Would you purchase another stove with your own money?</td>
<td>Explain:</td>
</tr>
<tr>
<td>If Yes, which stove?</td>
<td></td>
</tr>
<tr>
<td>If No, why not?</td>
<td></td>
</tr>
<tr>
<td>Is there any other income generating activities you can think of to earn enough money to support your household? (prompt renting chairs, selling water)</td>
<td>Explain yes or no:</td>
</tr>
<tr>
<td>Do you benefit from LEAP?</td>
<td>Yes ( ), No ( )</td>
</tr>
<tr>
<td>If yes, which helps you more to support the household, <em>Ahotor</em> or LEAP?</td>
<td>Explain:</td>
</tr>
<tr>
<td>Before <em>Ahotor</em>, did you send your children away?</td>
<td>Yes ( ), No ( )</td>
</tr>
<tr>
<td>Explain:</td>
<td></td>
</tr>
<tr>
<td>If yes, did someone pay you for this?</td>
<td>Explain:</td>
</tr>
<tr>
<td>After <em>Ahotor</em>, did you send your children away?</td>
<td>Yes ( ), No ( )</td>
</tr>
<tr>
<td>Explain:</td>
<td></td>
</tr>
<tr>
<td>If yes, did someone pay you for this?</td>
<td>Explain:</td>
</tr>
<tr>
<td>Has your view of sending children away changed?</td>
<td>Explain:</td>
</tr>
<tr>
<td>Has your view of children working instead of attending school full-time changed?</td>
<td>Explain:</td>
</tr>
<tr>
<td>Why do you think other people send their children away?</td>
<td>Explain:</td>
</tr>
</tbody>
</table>

**PERSONAL OBSERVATION BY EMUNERATOR**
Since you received the Ahotor, what has changed for you? (prompt income, school). How is this vulnerable household benefitting from the Ahotor stove (or not)?

Did this person meet the criteria for Ahotor as a vulnerable household (per tool)?

SECTION 7: APPENDIX B

Households at-risk Questionnaire

INTRODUCTION

This vulnerable household identification process is being carried out by Netherlands Development Organisation-SNV under the USAID/Ghana Sustainable Fisheries Management Project (SFMP). It seeks to identify vulnerable or at-risk households that can be supported with energy efficient cook stoves to enable them to promote their access to services and opportunities among the extreme poor and vulnerable. To achieve this, the project seeks to have a few minutes of your time to get your views on the questions below.

GENERAL PROFILE

1. Name of household head/Individual: .................................................................
2. Name of Community & District/Suburb ...........................................................
3. Location of household (area/landmark): .........................................................
4. Street name & H/No (if any): ........................................................................
5. How many persons are in this household? ..............................
   Number of males ( ) ; b. Number of females ( )
   How many of them are your biological children, and dependents?
   Number of biological children..............
   Number of ‘dependents’ ..........
   What are the ages of the members of this household?
   0–5 ( ); 6-10 ( ); 11-14 ( ); 15-18 ( ), 18 and above ( )
6. Is the household head under 18 years?
   Yes........ How old is she/he........?
   No........ How old is she/he........?
7. Is any member of the family/household over the age of 65?
8. If yes, How many?.................
9. Is any member of the family/household chronically ill for at least three months or more?
10. Is any member of the household living with disability? Yes....... No....
11. If yes, specify the type of disability
12. Mobility and Physical Impairments
13. Vision Disability
14. Psychiatric disability
15. Hearing Disability
16. Learning disabilities
17. Is the household an indigenous one or migrants?
   18. Indigenous
19. Migrant

ECONOMIC SITUATION

20. What are the major livelihood activity (ies) this household is involved in?
21. None ( ); b. Fishing ( ); c. Fish Smoking ( ); d. Fish marketing (mongering, retailing, wholesaling); e. Other (specify)..................
22. Is fish smoking the main economic activity of the household/family? Yes…..No…. 
23. How regular does the household smoke fish?
   24. Daily
   25. Weekly
   26. Fortnightly
   27. Monthly
   28. periodically
29. Does the household face any problems in smoking fish?
   Yes …..
   No……..
30. IF YES, List three main problems
   1. __________________ 
   2. __________________ 
   3. __________________ 
31. Which stove(s) do you use for your fish smoking?
   Chorkor Morrison Awep stoves Other….Specify
32. Do you belong to any cooperative or financial organisation?
   Yes…….
   No…….
33. If No, are you willing to join a cooperative or financial organisation in the future?
   Yes
   No
CHILDREN AND RISK

34. What is the total number of children in the household?.................................

35. How many of the children in the household/family are in school? .................

36. Does every child of school-going age (4-16) in the household/family attend school? YES / NO. (If 'no') why? .................................................................................................................................

37. At what age (s) did they stop school?  4-12 ( ); 13-15 ( ); 16-17 ( )

38. Are those not in school engaged in any work activity? YES / NO

39. If yes, what work do the boys engage in?

40. i. Fishing (); ii. Fish processing (); iii. Fish marketing (); iv. Other () specify.

41. At what age do they start working i. 4-11 ( ); ii. 12-14 ( ); iii. 15-17 ( )

42. If ‘yes’ what work do the girls engage in?

43. Fishing (); ii. Fish processing (); iii. Fish marketing (); iv. Other () specify

44. At what age do they start?  4-11 ( ); 12-14 ( ); 15-17 ( )

45. If the children are in school, who supports with fees?
   a. Father (); b. Mother (); c. Relative () specify …; d. Other (specify)……..

46. Is any child in full-time school also working? YES / NO

47. If ‘yes’ what work to the boys in this situation do?
   Fishing ()
   Fish processing ()
   Fish marketing ()
   Other (specify).....................

48. At what age do they start?  4-11 ( ); 12-14 ( ); 15-17 ( )

49. If yes, what work do the girls do?
   1. Fishing (); ii. Fish processing (); iii. Fish marketing (); iv. Other (specify).....................

50. At what age do they start?  4-11 ( ) 12-14 ( ) 15-17 ( )

51. When do the children work?
   Monday-Friday after school only ();
   Saturday - Sunday only;
   School holidays ( );
   school vacation
   Others (specify)

52. Do you send your children to work for others?

53. If ‘yes’ What were their ages when they were sent away? ..............................
   Number of girls........
   Number of boys........

54. Why do/did they give away the children to work for others? ..........................
55. Where are/were they sent to work? .................................................................

56. Who did/do they go to work with?
   Immediate relative;
   Distant relative;
   Someone from your ethnic group or with family connections to other community,
   Total Stranger.

57. e. What work were they sent to do? .................................................................

58. If ‘no’, would you ever send your children to work for others YES / NO

59. If ‘yes’, under what circumstances would you be willing to send your children to work for
   others? .................................................................................................................

60. If you had your own way, will you employ services of children? YES / NO. Why?
   .............................................................................................................................

Date: ..............................................  Name of Assessor: ..................................................

Please Provide your contact if you want us to contact you for further information. Phone No: 
...............................................