# GOLD STANDARD PASSPORT

## GOLD STANDARD PASSPORT

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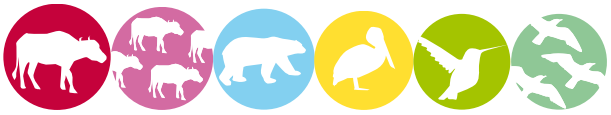





The Gold Standard
Premium quality carbon credits

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## SECTION A. Project Title

**[See Toolkit 1.6]**

Stoves for Life II: Energy Efficient Cook Stove Project, Kenya

## SECTION B. Project description

**[See Toolkit 1.6]**

This project is being developed by **Eco2librium (ECO2). ECO2** is working with established local suppliers (i.e.stove production groups) and independent stove installer groups in the region surrounding Kakamega Forest in western Kenya. The targeted population (forest adjacent communities) lives approximately within 10-20 km of the Kakamega rainforest. It is one of the densest rural populations in the world (>500 people per square kilometer), with a poverty level greater than 50% (KNBS 2009), For 90% of this dense and growing population, the adjacent rainforest provides fuelwood and/or a source of livelihood (Guthiga and Mburu, 2006, Mitchell 2004, Mitchell and Schwab 2007). Most of the products are timber related (e.g. fuelwood, polewood, charcoal) resulting in clearing and considerable disturbance related to the cutting of trees. The Kakamega Forest has lost almost 50% of its area since it was formally gazetted in 1933, and because of it unique biodiversity and threat level from the dense surrounding population, it has received a ranked conservation status by the IUCN (Wass 1995).

**Woman with fuelwood and Kakamega Forest in background**

In the first seven years, the project has introduced locally made, fuel efficient "Upesi cooking stoves" to about 46,000 households in forest adjacent communities around Kakamega Forest in Western Kenya. In the next seven years, we project to put stoves into an additional 100,000 households. The producing, distribution and installation of stoves is currently providing jobs for over 400 people, 70% of which are women. We expect this number to increase accordingly in the next seven years.

Carbon Credit Ownership and Transfer: Upon completed installation of the stoves, the buyer signs a

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Purchase and Sales Agreement (PSA). The PSA contains language that transfers the carbon rights to ECO2 upon signing. After signing of PSA, buyer pays for stoves. Myclimate pays for verification and ECO2 owns all issued VERs (i.e. credits). ECO2 delivers all VERs to an account designated by myclimate Foundation. myclimate Foundation then delivers VER revenues to ECO2 at a pre-arranged price per VER.

**Women making stoves**

**Stoves made and stored**

Based upon Baseline and Project Performance Field Tests (2011 and 2013) and Project Field Test Updates (2013, 2015, and 2016), the Upesi stoves reduce wood consumption by about 40% depending on season and stove type (1pot vs 2pot stoves). These wood savings are accompanied by numerous other benefits which include reduced time spent collecting fuelwood, reduced personal capital spent on fuelwood, reduced time exposed to cooking smoke, and decreases in forest degradation rates. The forest in this area is severely threatened by a growing population who use its wood for cooking. Much of the poverty and sustainable development challenges faced by this region can be solved in part by reducing fuel requirements from non-renewable biomass and providing stove production/distribution as a viable income for community women.

**Women collecting fuelwood from Kakamega Forest**

The Upesi Stove is a ceramic stove used for cooking with wood. In this region it is made of local clay and sand mixtures using locally made metal molds and then baked in mud/clay kilns. Once installed in

the home, cooking pots are placed on top of the stove while fuel wood is fed into a compartment underneath that focuses the heat directly upward instead of in all directions like a traditional 3 stone fire, which is the predominate cooking method in this region and the baseline scenario. The Upesi stove is installed permanently in the kitchen using mud and clay with stones. The simple design made from local materials makes the stoves relatively inexpensive to produce ($2/stove) and install ($4-5/stove).

The project will be managed by Eco2librium's Field Director (Dr. Anton Espira). Eco2librium has provided micro business loans for suppliers to buy materials (e.g. molds) and build storage facilities needed to increase production capacity and will finance the production and installation of stoves. The stoves will then be sold at reduced prices. The price includes a quality guarantee to replace or repair for life of stove. We are also providing an incentive program (Scott's Club) for owners to ensure continual stove use for the project duration and beyond.

The first project stove was constructed on 23 November 2010.

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## SECTION C. Proof of project eligibility

### C.1. Scale of the Project

**[See Toolkit 1.2.a]**

*Please tick where applicable:*

| Project Type | Large | Small |
|---|---|---|
|  | ☐ | ☐ |
|  | ☐ | ☐ |
|  | ☐ | ☐ |
|  | x | ☐ |
|  | ☐ | ☐ |
|  | | ☐ |

### C.2. Host Country

**[See Toolkit 1.2.b]**

**Kenya,** which is a developing country that has ratified the Kyoto protocol and is listed as a Non-Annex I country with no cap on GHG emissions.

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## C.3. Project Type

**[See Toolkit 1.2.c and Toolkit Annex C]**

*Please tick where applicable:*

| Project type | Yes | No |
|---|---|---|
| Does your project activity classify as a Renewable Energy project? | ☐ | x |
| Does your project activity classify as an End-use Energy Efficiency Improvement project? | x | ☐ |

*Please justify the eligibility of your project activity:*

The project is the dissemination of locally made, energy efficient cook stoves into households replacing 3 stone baseline cooking methods. By reducing the consumption of unsustainably harvested fuel wood GHG emissions are reduced. Therefore it qualifies as an End-use Energy Efficiency Improvement project.

| Pre Announcement | Yes | No |
|---|---|---|
| Was your project previously announced? | ☐ | x |

Explain your statement on pre announcement

This project is applying for 1st renewal of crediting period. The proposed project activity has not been announced previously without mentioning that it will be conducted as a carbon offset project. Please see the project decision timeline below for clarification.

Project decision timeline:

- First local stakeholder meeting was conducted in 23 May 2008
- MoU between Eco2librium and myclimate signed on 29 September 2009
- Local Stakeholder meeting was conducted on 26 October 2009
- Stakeholder report uploaded to Gold Standard registry on 10 December 2009
- VERPA between Eco2librium and myclimate 20 October 2010
- Construction of first project stove was on 23 November 2010
- Stakeholder meeting for renewal was conducted on 11 April 2017

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## C.4. Greenhouse gas

**[See Toolkit 1.2.d]**

| **Greenhouse Gas** | |
|---|---|
| Carbon dioxide | x |
| Methane | x |
| Nitrous oxide | x |

## C.5. Project Registration Type

**[See Toolkit 1.2.f]**

| **Project Registration Type** | |
|---|---|
| Regular | x |

| Pre-feasibility assessment | Retroactive projects (T.2.5.1) | Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2) | Rejected by UNFCCC (T2.5.3) |
|---|---|---|---|
| | ☐ | ☐ | ☐ |

**If Retroactive, please indicate Start Date of Construction dd/mm/yyyy:**_____

**Certification Schemes: The project proponents have not applied for any other certification schemes regarding this project.**

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## SECTION D. Unique project identification

### D.1. GPS-coordinates of project location

**[See Toolkit 1.6]**
Largest town in project area is Kakamega:
N 0°17'00.17'', E 34°44'59.92'' (WGS 1984)

*Explain given coordinates*

The largest town in the project area is Kakamega of which coordinates are indicated above.

The project boundary was generally defined to include the households located within approximately 10 kilometers from the edge of Kakamega Forest. This area is chosen because studies show that this population uses the forest wood primarily as well as other forest resource This area is now relatively saturated with stoves and the focus of activities will be further out and include others areas where people still use wood but do not have efficient stoves. The project boundary is specifically defined as households located within boundary shown in the map below.

### D.2. Map

**[See Toolkit 1.6]**

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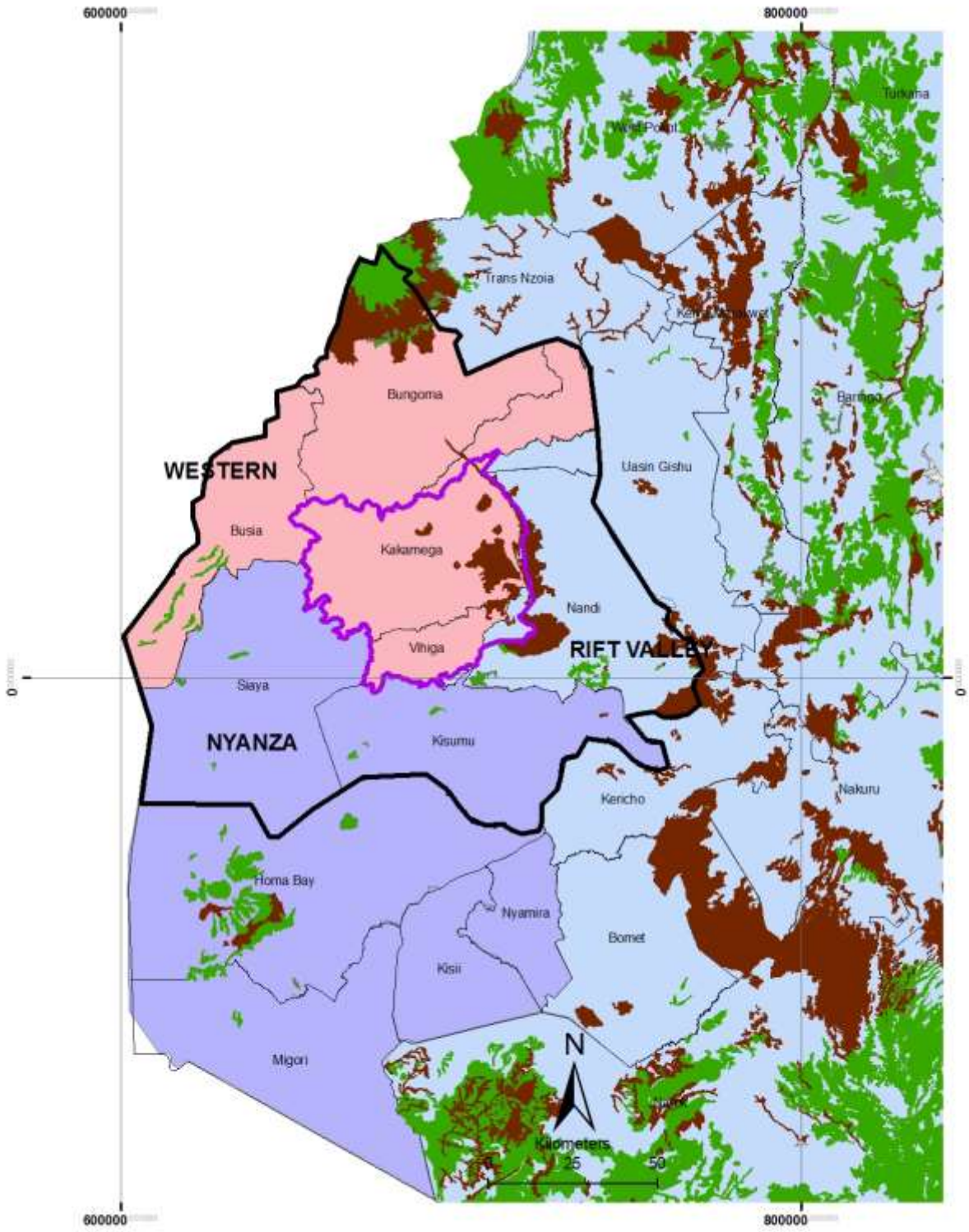


**Project Boundary. Project boundary is within the dark black outline and includes the counties within Western Province (gray) as well as small areas within Rift Valley Province (light blue) and Nyanza Province (dark blue). The original project boundary is a dark blue line. Kakamega Forest and other forests are shown in green.** Georeference markers are in WGS 1984 UTM.

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## SECTION E. Outcome stakeholder consultation process

### E.1. Assessment of stakeholder comments

**[See Toolkit Annex J]**

[See Local Stakeholder Consultation Report B.5 and insert table from ii Assessment of comments. Insert a summary of alterations based on comments]

**Assessment of comments**

| Stakeholder comment | Was comment taken into account (Yes/ No)? | Explanation (Why? How?) |
|---|---|---|
| Is it possible to get direct loans from the company? | Yes | We have a micro-loan component of Eco2 (KILNS) and we do give loans but up until this point they have been for building capacity of producers. We will begin to expand this more fully. |
| There are a lot of liners that are destroyed and need replacement. | Yes | We have a repair/replacement component and we will work with installers to make this more efficient in the future. |
| Can a person belong to 2 installer groups? | No | This is not done, but we do suggest starting your own group somewhere else. |
| What can be done about installing stoves outside the project boundary | Yes | This is being done during this re validation. |
| There should be more education and marketing. | Yes | We will be having more cook outs and marketing in the new areas. |
| There should be more | Yes | As we move into new user |

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| | | |
|---|---|---|
| producer training. | | areas we will be training more producer groups to supply the liners in these areas. |
| We should look into hospital records for improvements in respiratory ailments due to less smoke with new stoves. | Yes | We will explore this as a possible indicator for air quality. |
| With regards soil quality, we should (1) rotate soil extraction sites and be more selective in certain areas; (2) grow trees; and (3) get time series assessments. | Yes | We will create a more deliberate plan for site rehabilitation that will include time series assessments. |
| The new kilns for firing the liners are much better for less smoke and air quality | Yes | We have already provided loans to producer groups to make more modern kilns to fire liners and plan to continue this. |
| Eco2 should monitor installers and look for livelihood improvements | No | This is already done. |
| We should properly organize groups and train more personnel | Yes | We will work with groups to organize better and we will be training more personnel as we expand. |
| We should get Kenya Bureau of Standards to stamp stoves that they met required standards | Yes | WE will contact Kenya Bureau of Standards and inquire. |
| We need an environmental education partnership | Yes | We will put this into our goals for the next couple years. |
| There were a few comments from the evaluation about the price we pay for liners. | Yes | We will be initiating negotiations with suppliers (producers) regarding increasing the price Eco2 pays for liners. |

## E.2. Stakeholder Feedback Round

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Please describe report how the feedback round was organised, what the outcomes were and how you followed up on the feedback.

**[See Toolkit 2.11]**

Eco2librium will provide hard and digital copies of the stakeholder consultation report, revised PDD, revised Passport, and any other documentation to stakeholders. Copies of these documents will be kept at ECO2 office in Kakamega, a central location for all. They will also be made available on our webpage for access that way. Stakeholders will be asked to read the revised documents and provide feedback to Eco2 in writing or by email within 2 months upon receipt of the revised documents. Eco2 will review the comments/feedback and make any necessary changes.

## SECTION F. Outcome Sustainability assessment

### F.1. 'Do no harm' Assessment

**[See Toolkit 2.4.1 and Toolkit Annex H]**

| Safeguarding principles | Description of relevance to my project | Assessment of my project risks breaching it (low/medium/high) | Mitigation measure |
|---|---|---|---|
| **Human Rights** | | | |
| 1 | Upesi efficient cook stove is different from traditional 3-stone cooking method, but it is based upon it, so little cultural change is required. | Low | Not needed |
| 2 | The production and use of efficient stoves does not result in any person's relocation or resettlement. | Low | Not needed |
| 3 | The project disseminates efficient cook stoves to replace the 3-stone fireplace used for cooking. This does not result in any alteration, damage or removal of cultural heritage. | Low | Not needed |
| **Labour standards** | | | |
| 4 | Workers have already established working groups and Stoves for Life will build their capacity. | Low | Not needed |
| 5 | All work related to construction and dissemination is voluntary. No household is forced to buy efficient stoves. | Low | Not needed |
| 6 | All workers are adults. No child labour is engaged for the construction of the stoves or for the preparation of any construction | Low | Not needed |

| | | | |
|---|---|---|---|
| | material needed. | | |
| 7 | Project works with already established groups, which are women and youth groups, but will work with other groups to maintain standards related to discrimination. | Low | Not needed |
| 8 | No hazardous materials are used for the construction of the improved stoves. All materials are locally available. The construction does not involve any dangerous processes. Cooking stoves are dried in kilns and this may be the only safety issue, but training and safeguards will be put into place. | Low | Not needed |
| **Environmental protection** | | | |
| 9 | The project activity does not involve planting or agricultural activities nor the use of hazardous materials. Project promotes environmental protection. | Low | Not needed |
| 10 | No natural habitats will be converted or degraded. The materials used for stove construction are: local clay, sand, and water.<br>The project promotes habitat conservation through reduced fuelwood use. | Low | Not needed |
| 11 | The project is implemented by Eco2librium (a U.S. LLC) in collaboration with numerous community based organization in project area and myClimate.<br>The project is not prone to potential corruption opportunities. | Low | Not needed |
| **Additional relevant critical issues for my project type** | **Description of relevance to my project** | **Assessment of relevance to my project (low/medium/high)** | **Mitigation measure** |
| 1 | N.A. | | |
| 2 | N.A. | | |
| Etc. | N.A. | | |

## F.2. Sustainable Development matrix

**[See Toolkit 2.4.2 and Toolkit Annex I]**

Insert table in section C3 from your Stakeholder Consultation report (Sustainable Development matrix).

| Indicator | Mitigation measure | Relevance to achieving MDG | Chosen parameter and explanation | Preliminary score |
|---|---|---|---|---|

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| | | | | |
|---|---|---|---|---|
| Gold Standard indicators of sustainable development | If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-' | Check www.undp.org/mdg and www.mdgmonitor.org<br><br>Describe how your indicator is related to local MDG goals | Defined by project developer | Negative impact: score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated<br><br>No change in impact: score '0'<br><br>Positive impact: score '+' |
| Air quality | | MDG 5: Improve maternal health<br><br>Upesi stoves, by reducing wood use and in their design, reducing smoke, may decrease exposure to wood smoke thus improving maternal health since women do all the cooking. | *1. Air quality in homes:*<br>*# of positive comments from users of stoves in Kitchen Survey*<br><br>Upesi Stoves will reduce fuelwood smoke through cleaner burning and decreased fuelwood burning through efficiency. This should lead to positive comments by stove owners about indoor air quality | + |
| Water quality and quantity | | | Overall, reduced deforestation is expected to improve water quality and quantity, but difficult to attribute directly to project, therefore neutral. | 0 |
| Soil condition | Mitigation measures include rotation of clay extraction sites | | Overall, reduced deforestation is expected to improve regional soil conditions. Localized | 0 |

| | | | | |
|---|---|---|---|---|
| | and planting of native grasses in soil extraction areas to stabilize soil. | | soil conditions where clay extracted could be affected at small scales, but stove production groups and ECO2 already use mitigation measures to reduce these effects through rotation of extraction sites and grass planting to protect and restore soil conditions. | |
| Other pollutants | | | Project does not involve other pollutants. | 0 |
| Biodiversity | | | Upesi stoves will cut fuelwood use in half and protect habitat. This is expected to conserve biodiversity, but this is a very long-term variable and potentially affected by other variables therefore we keep it at neutral. | 0 |
| Quality of employment | | MDG 1: Eradicating Poverty<br><br>Project is providing income for over 100 people who made less than this prior to project start and more than half of these people are women. | *1. Number of people employed by project earning greater than previously*<br>*a. Record keeping of project salaries.*<br>*b. Survey*<br><br>This project will provide direct incomes for over 100 people in amounts that exceed the what they made prior. | + |
| Livelihood of the poor | | MDG 1: eradicate extreme poverty<br><br>Project is reducing wood use (and the time and money spent) by about 40%. This may release additional income and/or provide time to engage in income generation activities. | *1. Savings of time for fuelwood per household*<br>This will be monitoring through Kitchen Surveys. | + |
| Access to | | MDG 7: Ensure environmental | *1. Number of people using energy efficient* | + |

| | | | | |
|---|---|---|---|---|
| affordable and clean energy services | | sustainability<br><br>Project will provide 46, 000 households in first crediting period and 100,000 households in second crediting period with energy stoves that reduce forest wood consumption by about 40%. | *cooking methods*<br>a. sales record<br><br>>70% of households in this area still use traditional cooking methods of three stones using wood for fuel | |
| Human and institutional capacity | | MDG 3: Promote gender equality and empower women<br><br>Project specifically addresses training and work for women (in the production, selling, and installation of energy efficient stoves). | *1. Number of women in area receiving training and income.*<br><br>Project records can show training and income to women. Project focuses on women's groups to build their capacity to produce, market and sell and install EE stoves. | + |
| Quantitative employment and income generation | | MDG 1: Eradicate extreme poverty<br><br>Project is providing income generation to over 100 people, many of which did not have consistent, predictable sources of income prior. | *1. Number of people receiving an income.*<br><br>Project financial records.<br>Project will provide income to over 300 people directly. | + |
| Balance of payments and investment | | | Project does not involve this indicator. | 0 |
| Technology transfer and technological self-reliance | | | Although the project will bring some technology and training to this area, the stoves are based upon traditional cooking methods and bring no real technology. However local capacity is built for production and marketing of stoves. | 0 |
| **Justification choices, data source and provision of references** | | | | |

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| | |
|---|---|
| A justification paragraph and reference source is required for each indicator, regardless of score | |
| Air quality | Health impact of household energy use:<br>As the baseline, air quality in households is generally poor from cooking with wood using the three-stone method where cooking is done indoors in poorly ventilated spaces. It is expected that because Upesi stoves burn cleaner and use 50% less wood than the three-stone that air quality in households, as measured by the total amount of time a person is exposed to fire smoke, will be positively influenced. This is in turn expected to decrease the number of respiratory ailments reported in local clinics.<br>"Lack of access to clean, efficent, modern energy in the home can impact health in many ways. The most important direct health effects result from the air pollution caused by burning solid fuels, often indoors on open fires and simple stoves. […] There is good evidence linking smoke from solid fuel use in developing countries with three important diseases—child pneumonia, chronic obstructive pulmonary disease (COPD), and lung cancer. Smoke from incomplete combustion of solid fuels contains many substances known to be toxic to human health through a variety of mechanisms. Among these pollutants, small particulate matter and carbon monoxide have been most commonly measured in homes using solid fuels." WHO & UNDP 2009, page 22.<br><br>Sources:<br>The Energy Access Situation in Developing Countries. A Review Focusing on the Least Developed Countries and Sub-Saharan Africa. WHO & UNDP, November 2009: http://www.undp.org/energy/<br><br>The monitoring Kitchen Survey will include this indicator (reduced indoor air pollution) in the questionnaire. |
| Water quality and quantity | As the baseline, water quality and quantity are generally poor in this region due to deforestation. Although this project will potentially slow deforestation rates this effect on water quality and quantity is long-term and potentially influenced by many other variables.<br><br>Sources:<br>KOKWARO, J.O. (1988) Conservation status of the Kakamega Forest in Kenya: the easternmost relic of the equatorial rainforests of Africa. Monogr. Syst. Bot. Misouri Bot. Garden 25:471-489.<br>WASS, P. (1995). Kenya's Indigenous Forests: Status, Management, and Conservation. IUCN, Gland, Switzerland.<br>"State of the World's Forests 2009". United Nations Food and Agriculture Organization. [http://www.fao.org/docrep/011/i0350e/i0350e00.HTM] |
| Soil condition | Locally, the soil could be damaged from clay extractions near stove production sites, but this is very local and is already being successfully mitigated by groups who make stoves and ECO2 and have been doing |

| | |
|---|---|
| | so for many, many years. Project could have positive large scale effects through reduced deforestation.<br><br>Sources:<br>KOKWARO, J.O. (1988) Conservation status of the Kakamega Forest in Kenya: the easternmost relic of the equatorial rainforests of Africa. Monogr. Syst. Bot. Misouri Bot. Garden 25:471-489.<br>WASS, P. (1995). Kenya's Indigenous Forests: Status, Management, and Conservation. IUCN, Gland, Switzerland.<br>"State of the World's Forests 2009". United Nations Food and Agriculture Organization. [http://www.fao.org/docrep/011/i0350e/i0350e00.HTM]<br><br>Mitigation of soil extraction sites occurred during the 1st crediting period and will continue. This mitigation involved the planting of grasses and trees to reduce erosion and to enhance soil. |
| Other pollutants | This project is not involved with any other pollutants and will not produce any other significant pollutants. |
| Biodiversity | While the stoves will decrease wood use by half the direct effects of this on forest biodiversity will be difficult to measure, especially during the project timeframe. Project may have positive effects through reduced deforestation, but this is difficult to measure and attribute to project.<br><br>Sources:<br>BOETCHER, A., LUNG, M.A., AND GEHRING, T. 2008. An Assessment of Human Access and Forest Use Patterns in Kakamega Forest, Kenya: Implications for Management and Forestry-based Carbon Offset Projects. Working Paper, KFS.<br>LUNG. T. AND SCHAAB, G. 2006. Assessing fragmentation and disturbance of west Kenyan rainforests by means of remotely sensed time series data and landscape metrics. Afr J Ecology 44:491-506.<br>Mitchell, N. 2004. Exploitation and disturbance history of Kakamega Forest, western Kenya. BIOTA East Report #1.<br>"State of the World's Forests 2009". United Nations Food and Agriculture Organization. [http://www.fao.org/docrep/011/i0350e/i0350e00.HTM] |
| Quality of employment | Employment in this region is very low with more than 50% reporting no source of employment. Poverty levels are >50%. Under the baseline, this is expected to continue. This project will bring employment and income to at least 300 people at wages significantly above what was made prior and thus positively influence quality of employment in this area.<br><br>Sources:<br>Dose, H. 2007. Securing household income among small-scale farmers in Kakamega District: possibilities and limitations of diversification. GIGA (German Institute of Global and Area Studies) Research Programme: |

| | |
|---|---|
| | Working Paper, No. 41.Transformation in the process of Globalization, Hamburg.<br><br>Kenya National Bureau of Statistics (KNBS) 2009. Republic of Kenya: 2009 Kenya Population and Housing Census. |
| Livelihood of the poor | Poverty in this region is above 50%. Access to energy sources, clean water and health care is poor. Many people spend considerable time collecting wood for fuel and most people do not have an steady income. Under baseline this is expected to continue. This project will provide reduce wood use and subsequently reduce time and money spent collecting wood.<br><br>Sources:<br>GUTHIGU, P. AND J. MBURU. (2006) Local communities incentives for forst conservation: case of Kakamega Forest, Kenya. Paper presented at 11th Conference of the International Association for the Study of Common Property. Bali, Indonesia, 2006.<br>HABERMEHL, H. 1994. Microeconomic and macroeconomic benefits of household energy conservation measures in rural areas of Kenya. Deutsche Gesellschaft fur. Technische Zusammenarbeit (GTZ) GmbH. Household Energy Program (HEP). Germany.<br><br>Monitoring surveys will include time savings of the households with improved stoves and compare to baseline. |
| Access to affordable and clean energy services | Under baseline scenario, most people in this area cook with wood using the three-stone method. The wood comes largely from the forest which can be costly for many households to buy permits and takes considerable time to collect. This project will reduce wood consumption by almost half thus reducing incomes and time spent on fuel.<br><br>Sources:<br>GUTHIGU, P. AND J. MBURU. (2006) Local communities incentives for forst conservation: case of Kakamega Forest, Kenya. Paper presented at 11th Conference of the International Association for the Study of Common Property. Bali, Indonesia, 2006.<br>HABERMEHL, H. 1994. Microeconomic and macroeconomic benefits of household energy conservation measures in rural areas of Kenya. Deutsche Gesellschaft fur. Technische Zusammenarbeit (GTZ) GmbH. Household Energy Program (HEP). Germany.<br>BOETCHER, A., LUNG, M.A., AND GEHRING, T. 2008. An Assessment of Human Access and Forest Use Patterns in Kakamega Forest, Kenya: Implications for Management and Forestry-based Carbon Offset Projects. Working Paper, KFS.<br>LUNG. T. AND SCHAAB, G. 2006. Assessing fragmentation and |

| | |
|---|---|
| | disturbance of west Kenyan rainforests by means of remotely sensed time series data and landscape metrics. Afr J Ecology 44:491-506.<br>Maurer, J. et al. 2007. The relationship between community conditions and forest utilization in Kakamega Forest, Kenya. Unpublished report conducted for Kakamega Environmental Educatio Programme. |
| Human and institutional capacity | Currently, the groups that make the stoves have limited capacity, in terms of knowledge, staffing, infrastructure, and marketing/dissemination abilities, to produce and install stoves in households in this area. The primary goal of this project is to build their capacity through the process so that after the project they are able to maintain the production and sales and maintain their businesses. Women are underserved in this area and this project focuses on women in terms of employment. |
| Quantitative employment and income generation | Employment in this region is very low with more than 50% reporting no source of employment. Under the baseline, this is expected to continue. This project will bring employment and income to at least 300 people.<br><br>Sources:<br>GUTHIGU, P. AND J. MBURU. (2006) Local communities incentives for forst conservation: case of Kakamega Forest, Kenya. Paper presented at 11th Conference of the International Association for the Study of Common Property. Bali, Indonesia, 2006.<br>HABERMEHL, H. 1994. Microeconomic and macroeconomic benefits of household energy conservation measures in rural areas of Kenya. Deutsche Gesellschaft fur. Technische Zusammenarbeit (GTZ) GmbH. Household Energy Program (HEP). Germany.<br><br>Kenya National Bureau of Statistics (KNBS) 2009. Republic of Kenya: 2009 Kenya Population and Housing Census.<br><br>Annual monitoring of number of temporary and permanent jobs created for the project implementation. |
| Balance of payments and investment | N.A. |
| Technology transfer and technological self-reliance | Project will bring energy efficient cooking in culturally sensitive way to rural Kenya, but the stoves are not based on new technology, but a modification on traditional ways. |

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## SECTION G. Sustainability Monitoring Plan

**[See Toolkit 2.4.3 and Toolkit Annex I]**

*Copy Table for each indicator*

| | | |
|---|---|---|
| No | | 1 |
| Indicator | | Air Quality |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *# of positive comments from users of stoves in Kitchen Survey* |
| Current situation of parameter | | Upesi Stoves will reduce fuelwood smoke through cleaner burning and decreased fuelwood burning through efficiency. This should lead to positive comments by stove owners about indoor air quality. |
| Future target for parameter | | Expect the number of positive comments about indoor air quality from those who cook to increase over baseline. |
| Way of monitoring | How | Questionnaire at households |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator |

| | | |
|---|---|---|
| No | | 5 |
| Indicator | | Quality of Employment |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *Number of people employed by project earning greater than previously.* |
| Current situation of parameter | | Based upon livelihood surveys from past verifications, most people prior to receiving income as producers and installers for SFL were making very little if any income. In fact, 50% of households in this area report no income at all. |
| Future target for parameter | | Project expected to employ over 300 people with the majority earning more than previously without project. |
| Way of monitoring | How | Record keeping of project employees |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator and Project Manager |

| | | |
|---|---|---|
| No | | 6 |
| Indicator | | Livelihoods of the poor |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *Savings of time for fuelwood per household* |
| Current situation of parameter | | Over 90% of households use wood for cooking and reports show that over 15 hours per week spent on collection of wood. |
| Future target for parameter | | we expect mean time spent will decrease. |
| Way of monitoring | How | Kitchen Survey at households |

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| | | |
|---|---|---|
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator |

| | | |
|---|---|---|
| No | | 7 |
| Indicator | | Access to clean and affordable energy |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *Number of people using energy efficient cooking methods* |
| Current situation of parameter | | Reports show that the majorityof households in area use the three-stone method. |
| Future target for parameter | | Project will put approximately 100,000 new energy efficient stoves into households. |
| Way of monitoring | How | Sales records |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator and Project Manager |

| | | |
|---|---|---|
| No | | 8 |
| Indicator | | Human/institutional capacity |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *Number of women in area receiving a training and income for stoves.* |
| Current situation of parameter | | Women are generally not trained in this region but those that are often lack the capacity to apply training towards generating an income. |
| Future target for parameter | | Project is expected to train and generate income for over 30 women. |
| Way of monitoring | How | Project records can show income to women over baseline |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator |

| | | |
|---|---|---|
| No | | 9 |
| Indicator | | Income Generation |
| Mitigation measure | | na |
| *Repeat for each parameter* | | |
| Chosen parameter | | *Number of people receiving an income.* |
| Current situation of parameter | | About 50% of households in region report no income. |
| Future target for parameter | | Project will provide income to over 100 people directly |
| Way of monitoring | How | Project record and household questionnaires |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator |

| | |
|---|---|
| No | 3 |
| Indicator | Soil Condition |
| Mitigation measure | Rotation and planting of stabilizing plants |
| *Repeat for each parameter* | |

# GOLD STANDARD PASSPORT

| | | |
|---|---|---|
| Chosen parameter | | *Occurrence of rotation and area planted with stabilizing plants.* |
| Current situation of parameter | | Certain area of unstabilized soil. |
| Future target for parameter | | More area of stabilized soil |
| Way of monitoring | How | Observation and measurement of area |
| | When | Annually |
| | By who | Eco2librium Research/Monitoring Coordinator |

**Additional remarks monitoring**

N.A.

## SECTION H. Additionality and conservativeness

This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### H.1. Additionality

**[See Toolkit 2.3]**
N.A.

# GOLD STANDARD PASSPORT

# GOLD STANDARD PASSPORT

## H.2. Conservativeness

**[See Toolkit 2.2]**

N.A.

# GOLD STANDARD PASSPORT

## ANNEX 1 ODA declaration

**[See Toolkit Annex D]**

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**Eco2librium**
**332 S Haines**
**Boise, Idaho, 83706**
**USA**

**Kenya Africa, June 1, 2010**

**Project: Stoves for Life: Energy Efficient Cook Stove Project in Kakamega, Kenya**

**To: Gold Standard Foundation**

**Declaration of Non-Use of Official Development Assistance by Project Owner**

*Eco2librium*
As Project Owner of the above-referenced project, acting on behalf of all project participants, I now make the following representations:

*Dr. Mark Lung*
I hereby declare that I am duly and fully authorised by the project owner of the abovereferenced project, acting on behalf of all project participants, to make the following representations on Project Proponent's behalf:

**I. Gold Standard Documentation**
I am familiar with the provisions of Gold Standard Documentation relevant to Official Development Assistance (ODA). I understand that the above-referenced project is not eligible for Gold Standard registration if the project receives or benefits from Official Development Assistance under the condition that some or all credits coming out of the project are transferred to the ODA donor country. I now expressly declare that no financing provided in connection with the above-referenced project has come from or will come from ODA that has been or will be provided under the condition, whether express or implied, that any or all of the credits [CERs, ERUs or VERs] issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.

**II. Duty to Notify Upon Discovery**.
If I learn or if I am given any reason to believe at any stage of project design or implementation that ODA has been used to support the development or implementation of the project, or that an entity providing ODA to the host country may at some point in the future benefit directly or indirectly from the credits generated from the project as a condition of investment, I will make this known to the Gold Standard immediately.

**III. Sanctions**. I am fully aware that under Section 10 of the Gold Standard Terms and Conditions sanctions and damages may be incurred for the provision of false information related to Projects and/or Gold Standard credits.

**Signed:**

**Name: Dr. Mark Lung**
**Title: Executive director**
**On behalf of: Eco2librium**