

Project Proposal on:



**ORANGE-FLESHED SWEET POTATO FARMING & BRIQUETTING for COMMUNITY  
EMPOWERMENT & ENVIRONMENTAL STEWARDSHIP IN EMUHAYA, KENYA  
(POTBRICOMES-KEN)**

Submitted to:

World Connect



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African PRIDE Centre

## **1 Project Summary**

This project proposes an innovative intervention aimed at combating the high levels of poverty currently existing in Emuhaya Sub-County, Vihiga County in Kenya. The area is characterised by extreme hunger and malnutrition. There is also immense environmental degradation due to over-reliance on firewood for cooking. This predisposes people, particularly women and children to respiratory diseases, thus compounding the already worrisome situation of stunted growth and bad eyesight in children and cases of abortion among mothers – cases that studies attribute to vitamin A deficiency. Gender-based violence and other health-threatening happenings that have been attributed to the area's poverty situation are also rampant in the area. Performance by children in education has also been consistently low as a result of the poverty situation.

To contribute to countering these challenges promotion of orange fleshed sweet potato (OFSP) farming and briquetting enterprises. This project seeks to focus on 3 villages, namely, Ebusembe, Ekamanji, and Ebukhaya through a three-pronged approach comprising of awareness creation on the benefits of OFSP and briquettes; capacity strengthening in OFSP farming and briquetting enterprises for parents/guardians of selected poor school-going children in the area; and direct support to the identified poor children, so as to boost their educational achievement, as well as to the groups comprising of their parents/guardians, so as to enable them initiate OFSP farming and briquetting enterprises, has been envisaged.

The project will directly benefit 180 school-going poor children (girls and boys) and 90 parents/guardians (women and men) of these children. Over 150,000 residents of Emuhaya Sub-County will have their awareness on the benefits of OFSP and briquettes enhanced, with the overall impact of the project being felt in targeted households through improved incomes, better health, and improved educational performance of their children. These benefits are expected to spill to the rest of Emuhaya residents, who will access the OFSP and briquettes produced by the targeted parents, thus equally experiencing the health benefits of the products, besides saving on their incomes due to high calorific values provided by the products, as opposed to using those regularly used in the communities. The project is expected to also contribute to reductions in environmental degradation and in climate change-inducing emissions.

## **2 Brief History of African PRIDE Centre (APC)**

African PRIDE Centre (APC) was founded by Dr. rer Raphael Otakwa in 2007, who, having grown up in extreme poverty, was fortunate to have been considered, after primary school education, for a free (non-fee paying) place at the prestigious Starehe Boys Centre and School in Kenya. After University undergraduate education, Raphael struggled to get employment to no avail, following which he volunteered his services at a Non-Governmental Organization (NGO) that opened his perspective to the creation of opportunities for others held back by poverty, through programme work. It was during the stint at the said NGO that Raphael conceived the idea of establishing a not-for-profit organization that would be unfettered by the untransformed beliefs, particularly religious in nature, that hindered some aspects of effective programme interventions. A case in point was the hostility that existed with regard to condom use in HIV/AIDS prevention.

While still working with the NGO, Raphael mobilized a team of young girls and boys, and shared with them the idea of establishing an organization in which they would be critical actors, rather than targets of planned interventions. With his own savings and contributions from the five youths, APC was started as an education promotion organization. A plot was leased in Kawangware - one of the slums in Nairobi, where an education initiative that began with early childhood education (early childhood education was a preserve of the middle class and rich in Kenya then). The project provided quality early childhood education at affordable rates that parents/guardians could afford,

including cases where some that could not afford were educated for free. From the education interventions, parents/guardians of the children were facilitated to start self-help groups through which they saved and obtained loans for various income-generating activities.

Besides these interventions, older siblings of the children under our care were apprenticed in computing, tailoring, compressed earth brick-making, kale-growing in sacks, chicken rearing, and performance arts. A gym was started at the facility, which helped many youths to train – making some be employed as bouncers at entertainment joints in Nairobi City. The centre was run on renewable energy from solar panels and a wind propeller. All children in the centre had accounts at the Kawangware Barclay Bank branch, where parents were under duty to deposit something every month and show evidence of the deposit at the monthly parents' meetings.



1: APC youth practising their performing arts 2: APC ECD children practice kitchen gardening 3: APC members distribute gift boxes to a slum school in Kibera 4: Youths from Netherlands shown how compressed earth bricks are made at APC 5: Open interaction time of APC children, youths, staff and parents with youths from the Netherlands.



The APC Programme at Kawangware was so popular that the centre received numerous visits from government personnel, NGOs, and international guests. A memorable visit, which enlivened the children, youths and parents was that of over 100 youths from the Netherlands. These youths spend time in the centre, interacted with the children, youths and parents, and distributed gift boxes that they had come with to the children. Other gift boxes that they brought along with them were shared with many schools in Kenya. Based on the exemplar programme, APC was frequently invited to support other schools across Kenya in their programming for education that put the child at the centre, and parents as concerned stakeholders in the schools. In 2010, however, the income sources (mainly through consultancy work by senior members) for the sustainability of APC were meagre, particularly following Raphael's scholarship to go for further education. The landlady on whose plot APC stood also refused to renew the lease for the plot. Further, armed robbers drove into the centre at night and stole the solar panels, computers, and many valuables. These factors disorganized APC, and made its work to slow down. The remaining property was then sold off to pay our debts, as we planned for a way of rising up again. The images below depict APC's work.

APC's extension work stretched to Emuhaya 2010, and focused on enhancing access of children to quality education. Through this work, learning materials were solicited from various places, including used clothes to be donated to children that come from poor households or those who are orphaned. In Mwitukho Primary school in Ebukhaya sub-location, APC mobilized some little resources that were used to purchase desks for children that were hitherto learning while seated on the floor. In Ebbitsi Primary school, APC worked with the management to apply for an infrastructure improvement grant, which saw them build four permanent classrooms. Training of parents by APC in growing vegetables in sacks has also been done in the area and in other areas in Kenya. Parents of targeted schools have also been trained in sustainable farming and agribusiness. Overall, APC believes that when households are empowered through access to income generating opportunities, food security, good health, especially through better living condition, including less use of dangerous fuel sources, like kerosene and raw biomass, the enthusiasm of children to education is enhanced, which creates a favourable environment for greater educational achievement. In 2015, APC received a small research grant of US\$2000 from Trellis Fund of the University of California, Davis. This was used to test the validity of OFSP farming. Learnings of this project have informed this proposal. Further, as part of his PhD research, APC supported Raphael's application for financial support to undertake part of his research that focused on briquettes from agricultural residues in Emuhaya, besides other aspects of the research. Findings of this study have also informed the design of this proposal.

### **3 Brief Description of the Situation**

#### **3.1 Introduction**

Poverty, hunger and malnutrition are widespread in Emuhaya Sub-County of Vihiga County in Kenya, (Ngutu, 2014). Environmental degradation due to over-reliance on firewood for cooking is also rampant in the area (Amede, German, Rao, Opondo, and Stroud, 2004). These undesirable characteristics have a correlation with high school drop-outs, low transition rates and poor educational achievements, (Zivkovich, 2011). Malnutrition is a serious health concern in developing countries like Kenya, with allied nutritional problems such as vitamin A deficiency, (Nyaruhucha, et al, 2006). Vitamin A deficiency restricts growth, weakens immunity and eyesight and contributes to high childhood mortality, (Abdln and Nyekanyeka, 2013). According to the World Health Organization (WHO), an estimated 250,000 to 500,000 vitamin A-deficient children become blind every year, half of them dying within 12 months of losing their sight.<sup>1</sup> Hunger breeds violence, (Berger, 2006). In a 2011 report by Kenya's National Campaign Against

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<sup>1</sup> WHO *Micronutrient Deficiencies* accessed on 8/1/ 2015 from <http://www.who.int/nutrition/topics/vad/en/>.

Drug Abuse Authority (NACADA), a parallel is drawn between drug abuse and violence, especially gender-based violence (GBV) in Emuhaya District (NACADA, 2011). GBV has very close links to poverty and hunger - in fact, GBV is reported to increase levels of hunger and child malnutrition. But GBV in Emuhaya is said to have roots in rising incidences of unemployment and underemployment, especially of women and girls in the area. Lack of opportunities for women and youths, for example via local industries, leveraging for local commodities, marketing systems, and fuelwood scarcity solutions, make most households in Emuhaya continue to wallow in poverty cycles. Consequences of these are replete in the area's statistics relating to health issues, education, overall development, and environment-related challenges (Kuya, 2015).

Following a pilot project that APC implemented in Emuhaya in 2015 in partnership with Trellis Fund of the University of California, Davis, namely, *Promotion of Orange Fleshed Sweet Potato (OFSP) Farming*, a number of lessons were learnt that have informed the design of this project. Key among the learnings are that poverty reinforces health-damaging behaviours; health challenges in a community can be addressed by addressing underlying societal risk conditions; children from low-income households are significantly less likely to be successful in education and life; and that climate variability and change exacerbates poverty, GBV, poor health nutritional status of women and children, and poor educational achievements in a community. Studies have reported findings that emphasize these learnings. Tabish (2006) has reported findings that correlate social class and health status; highlighting that one of the most persistent disease patterns is that people in the lowest socioeconomic groups tend to have the highest rates of morbidity and mortality. On children's education, Ratcliffe (2015) underscores the finding by the US Census Bureau of 2014, which reported that low-income children caught up in their parents' economic struggles experience the impact through unmet needs, low-quality schools, and unstable circumstances. In fact, UNICEF and World Bank Group (2016) have underlined how children as a group are disproportionately poor, with about one in five living in poverty compared with one in eight adults.

The foregoing has encouraged us to design an intervention that takes cognizance of the lessons learnt from the pilot project to promote OFSP farming, as well as existing best practice in sustainable community development. Importantly, a holistic approach to curbing the cycle of poverty that exists among households in Emuhaya Sub-County is proposed. This appreciates that while availability of hunger and malnutrition-beating foods like OFSP are promoted, fuelwood for preparing them is scarce in the area, and that forewood use causes respiratory problems to the women and children that brave the smoke from agricultural residues commonly used for cooking. When agricultural residues are not used for cooking, households depend on trees, which depletes the country's tree cover that acts as a carbon sink. It has been estimated that in Kenya on average, the 64.6% of Kenya's 8.7 million households that depend entirely on firewood for cooking and warming each consume between 10 Kg and 20 Kg of forewood daily (CapitalNews, 2015). This is equivalent to 3 to 6 fast-growing trees. Each of these households, thence, contributes between 0.290 and 0.580 tonnes of atmospheric CO<sub>2</sub> annually, and consequently, to climate change. Augmenting the OFSP project with community briquetting enterprises will widen the route to tapping and supplementing an existing resource in the community: local knowledge, even if it is currently fragmented, scattered and lacking systems that foster requisite synergy. It will also increase the propensity for targeted individuals and households to be less affected by climatic shocks and stresses that emanate from agriculture-dependent livelihoods.

### 3.2 Problem Statement

Children, women and men in Emuhaya Sub-County in Kenya suffer acute levels of poverty, hunger and malnutrition. Further, effects of climate change and lack of access to clean energy for cooking compounds the situation, as well as their health. The 173.2 Km<sup>2</sup> Sub-County (ECDFC,

2013) is fairly arable, but perpetually experiences these negative development indicators. In 2009, the Sub-County's population was estimated at 87,136 male and 97,933 female. Population density is high – 1,234 (and rising); as is the dependency ratio of 0.906 (every 10 working persons support over 9 dependents). Poverty, hunger and malnutrition are widespread, with its social indicators being among the lowest in Kenya.<sup>2</sup> Over 65% of its people live below the poverty line, (Ngutu, 2014). The mainstay of the area is maize subsistence agriculture, despite the ever dwindling harvests, largely attributable to climate variability and change. Farming in the Sub-County has frequently faced low productivity and profitability, characterized by low and stagnant yields, due to various factors, including dependence on rains, poor crop husbandry (like crop rotation), lack of the requisite crop and weed management skills and inadequate adaptation to climate change. Consequently, majority of people in the area face severe food insecurity for larger parts of the year, and poverty and hunger in general. Indeed, (Stein, 1993) established that the most severe environmental problems are also in areas with many poor people.

In fact, it is estimated that over 90% of households run out of food between 1 and 2 months after corn harvest, and seek the often elusive opportunities of earning supplementary income to enable them purchase food on the market.<sup>3</sup> This reality has impacted negatively on the area's critical development indicators, including access to education, especially for girls; women empowerment; economic activity; crime levels; consumption of clean energy; access to water; average incomes; health and HIV-AIDS-related issues; etc. Rural household access to piped water in Emuhaya is 3.2%, while rural household access to piped electricity is 5.3%.<sup>4</sup> Impacts of the reality have disproportionately affected children, girls and women. For example, most children in the district have stunted growth; suffer from frequent infectious diseases and experience sight challenges.<sup>5</sup> Infant mortality rate is high – 100/1000, while under-five mortality rate is 120/1000.<sup>6</sup> Sexual exploitation of young girls due to the state of their households' poverty and hunger is also rampant, with indicators, such as HIV/AIDS rates being high among young girls, as well as early pregnancies being characteristic of the Sub-County.<sup>7</sup> For women, preterm delivery and maternal anaemia, which Radhikia et al (2002) have associated with vitamin A deficiency, are unbridled in the area.

In the area of energy for cooking, almost all the 43,030 households in the Sub-County<sup>8</sup> rely on firewood for cooking. This means that between 430,300 Kg and 860,600 Kg of firewood is used in the Sub-County every day. This means that over 120,000 fast-growing trees are consumed as firewood in the Sub-County on a daily basis. Annual contribution to atmospheric CO<sub>2</sub> by the Sub-County via firewood burning therefore can be evaluated to be between 12,478.7 tonnes to 49,914.8 tonnes. Other products of incomplete combustion (PIC) also get emitted, majority of which damage human health besides negatively impacting the atmospheric radiation budget. An affordable and clean energy solution to cooking fuel for the residential sector in Emuhaya Sub-County has not been explored to curb these challenges of firewood use.

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<sup>2</sup> African PRIDE Centre *Proposal on Horticultural Promotion* accessed on 9/1/2015 from <http://www.globalhand.org/en/search/requests/request/9524>.

<sup>3</sup> Ibid.

<sup>4</sup> <https://www.advance-africa.com/Vihiga-County.html>.

<sup>5</sup> Safe Water and AIDS Project (SWAP) *Annual Report 2013* accessed on 8/1/ 2015 from [http://www.swapkenya.org/pdf/swap\\_annual\\_report\\_2013.pdf](http://www.swapkenya.org/pdf/swap_annual_report_2013.pdf).

<sup>6</sup> Kenya Agribusiness and Agroindustry Alliance *Vihiga County* accessed on 8/1/ 2015 from <http://www.kaa.co.ke/vihiga-county/>

<sup>7</sup> Kenya Voluntary Development Association *Development Against Dependence 2014* accessed on 8/1/ 2015 from [http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB0QFjAA&url=http%3A%2F%2Fwww.nice1.gr.jp%2Ftopics\\_detail8%2Fid%3D3429&ei=yY6vVOXEec7baOTCgugF&usg=AFQjCNEQt-PIANy-mvYjmR0ns6t-ZSE1Wg](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CB0QFjAA&url=http%3A%2F%2Fwww.nice1.gr.jp%2Ftopics_detail8%2Fid%3D3429&ei=yY6vVOXEec7baOTCgugF&usg=AFQjCNEQt-PIANy-mvYjmR0ns6t-ZSE1Wg)

<sup>8</sup> <https://www.knbs.or.ke/constituency-population-by-sex-number-of-households-area-and-density/>.

## **4 Project Objectives and Duration**

### **4.1 Broad Objective**

The project seeks to contribute to poverty reduction; food security; better health; reduction in environmental degradation, reduction in violence and crime; and improved children's educational attainment in Emuhaya Sub-County of Vihiga County in Western Kenya through promotion of OFSP farming and briquetting enterprise.

### **4.2 Specific Objectives**

The specific objectives of the project are to:

- Provide awareness on the benefits of OFSP and briquettes to at least 150,000 residents of Emuhaya Sub-County by 31 December 2019;
- Empower at least 90 women and men from 3 villages in Emuhaya Sub-County with technical know-how on OFSP farming and briquetting enterprises by 28 February 2019; and
- Provide school uniforms and scholastic materials to at least 180 school-going girls and boys from 3 villages in Emuhaya Sub-County; and seed support to 3 groups in the targeted villages for initiation of OFSP farming and briquetting enterprises by 31 March 2019.

### **4.3 Project Duration**

The project is expected to run for a period of one year, from 31 December 2018 to 31 December 2019.

## **5 Project Description**

This project seeks to contribute to combating the roots causes of poverty in three purposively selected villages, namely, Ebusembe, Ekamanji, and Mwitukho, in Emuhaya Sub-County of Vihiga County in Western Kenya. A three-pronged strategic approach comprising of awareness creation, capacity strengthening, and direct support has been embraced. These underpin project objectives 1, 2, and 3, respectively.

Awareness creation will enthuse interest in OFSP farming and briquetting enterprise among the direct project beneficiaries, as well as trigger demand for the products in the wider market. Capacity strengthening will target the 90 targeted beneficiaries with the technical competencies for effective OFSP farming and briquetting enterprises, including group formation and dynamics, linkages with experts in the targeted themes, as well as demonstration projects for learning by doing that shall be undertaken by APC. Direct support will be a limited intervention that will be undertaken once, and its sustainability integrated in the capacity strengthening aspect of the project. The approach derives from the situation in the area, as indicated in section 3 of this proposal.

To address the problem of hunger and malnutrition, as well as the challenges associated with vitamin A deficiency in the area, a farmer outreach approach based on an adaptive research model is proposed. The plan seeks to empower women, young people and men through three local self-help groups in three purposively selected villages in Emuhaya as a pilot initiative towards farming of alternative food crops, starting with orange fleshed sweet potatoes that increase food security, mitigate poverty and hunger, and increase access to vitamin A. Each of the groups will have a minimum of 20 and maximum of 30 women and men drawn from the respective villages<sup>9</sup>.

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<sup>9</sup> Enrolment into the groups will be guided by the need to offer first opportunity to parents/guardians of the children considered as the very poor in the villages, who are attending schools in the neighborhoods. Our previous experiences in identifying the very poor children is through asking fellow children to nominate those among them that they think deserve support. We have learnt that children are honest and often prioritize their peers that

To address the challenges posed by the area's over-reliance on firewood for cooking, the local self-help groups that will be established to foster the farming of alternative food crops (starting with OFSP) will also be equipped with skills on making and marketing of briquettes made out of agricultural residues. The entire approach will be four-pronged – comprised of building awareness of and demand for the benefits and uses OFSP and briquettes, capacity strengthening, and direct support through the self-help groups that will be established.

Specifically, the approach will entail mobilization of commitment to OFSP farming and use, as well as briquetting, through awareness creation on their benefits and via partnership building and mobilizing resources for action aimed at increasing espousal of OFSP farming and use, as well as briquette making, marketing and use by local systems, including schools in Emuhaya. The approach seeks to trigger a multiplier effect that will ensure targeted villages have adequate people equipped with competencies on OFSP and briquette production, marketing and use. Gradual switch from non-performing food crops due to climate changes, like maize to climate resilient ones, like OFSP is envisaged in line with the advice from Samuel Issah,<sup>10</sup> who has been very helpful in the design of this intervention. Furthermore, shifts from use of cooking fuel with products of combustion or particulate matter that puts the lives of women and children at risk from respiratory ailments, to briquettes that produce smokeless embers during cooking, is envisaged. The approach to OFSP programming for communities has also been affirmed by Odhiambo and Kwach of Maseno University and Kenya Agricultural Research Institute (KARI) who have vast experiences in the OFSP arena and have published important findings on consumer evaluation of 12 sweet potato varieties in Kenya.<sup>11</sup> A demonstration plot will be established in a piece of land leased by APC for testing innovative agricultural ideas to act as a model for practical learning purposes for the groups. The same area will also serve as the centre for the development of the briquette enterprise.

Since the impact of the project is envisaged to be felt at household level through increased incomes and food security, and in the selected children's educational achievements, an initial support to the children, particularly the purchase of school uniforms and other scholastic materials, is proposed, so as to give them a boost in their educational work. Trainings under the project will be facilitated by resource persons with demonstrable experience in the specific areas, as well as in community development. A project officer will be hired to coordinate the project's implementation, while APC's leadership will provide overall oversight to the project; ensuring that all contractual obligations from both the project benefactors and beneficiaries are complied with. Appropriate linkages will continually be established/strengthened with other entities during implementation of the project, for purposes of synergy building.

#### 4.2 Rationale for Choice of OFSP farming and Briquetting

Sweet potato farming is sporadically undertaken in Emuhaya Sub-County. The crop requires few inputs compared with other crops currently grown in the area, as well as demanding relatively little labour and is traditionally a women's crop, (Abdln and Nyekanyeka, 2013). It is thus a good avenue through which to empower women in the area so as to free them from perpetual

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deserve support without biases. It will be after this nomination by children undertaken at school that APC will interview the top ones on the list, and visit their homes to recruit their parents/guardians into the groups.

<sup>10</sup> Essah, Samuel <Samuel.Essah@colostate.edu> "....I advise that as you educate the farmers to switch from maize to potato, we try and do it in a gradual manner. Farmers can divide their land into two. They can use half for potatoes and half for corn. They can rotate the crops every year. Then they can see for themselves the benefits of potatoes over corn. Eventually they will adopt..."

<sup>11</sup> Kwach J.K., Odhiambo, G.O., Dida, M.M. and Gichuki, S.T. (2010) *Participatory Consumer Evaluation of Twelve Potato Varieties in Kenya* African Journal of Biotechnology, Vol. 9(11), pp. 1600 – 1609.



incidences of GBV. The crop can produce more calories per unit of land compared to maize, which gives it great potential to fighting hunger (ibid). The whole sweet potato plant can be eaten, including the leaves, which as green vegetables provide useful source of proteins (4%) during the 'lean months' (ibid). In short, nothing is thrown away! But while all sweet potatoes are a good source of energy and vitamins C, E, K and several B vitamins, most of the white-fleshed varieties and even the commonly grown yellow-fleshed Kenyan varieties have no significant levels of vitamin A (ibid). To address this concern, CIP and KARI have worked with various stakeholders to develop new vitamin A-rich and climate appropriate sweet potatoes. These varieties are drought resistant and can grow throughout the year; hence two harvests are possible in a year. These developments have not benefited small-scale farmers, (Hilderbrand, 1984) because farmers' needs have not been incorporated in the development of the technologies.<sup>12</sup> The needs include access to OFSP knowledge, inputs and equipment.

Since the ultimate goal of this project is to counter poverty in Emuhaya through the use of experiential learning to cut hunger and improve nutrition, especially through increasing vitamin A intake among mothers and young children, as well as roll back on the problems attributable to over-reliance on firewood use, including respiratory ailments and contribution to atmospheric GHG emission, the new vitamin A-rich and climate adaptive OFSP variety, as well as briquetting of agricultural residues, will be promoted. As regards OFSP, just 100g of it per day meets the vitamin A demands of young children, (Abdln and Nyekanyeka, 2013). Further, as women are the main caregivers for children, and together with these children are also the group most vulnerable to vitamin A deficiency, OFSP is a particularly appropriate intervention for the poverty, hunger and malnutrition contextual indicators in Emuhaya.

Briquetting was chosen because briquettes present multiple benefits. Made from renewables, they could be cheap and sometimes a cleaner source of cooking fuel, generate income through sales, and reduce household expenditure on energy for cooking. Generating income and lowering household expenditure are critical to achieving poverty reduction. If emissions are reduced, less health problems associated with smoke in the kitchen will present. Briquettes are more affordable than charcoal, liquid petroleum gas, and other cooking fuels, and can thus contribute to food and nutrition security and also support commercial activities, like food processing, poultry farming, brick-making, and drying of fish and tea. Briquetting therefore opens up many opportunistic prospects for business growth for the targeted community.

#### 4.3 Project Beneficiaries

Over 150,000 residents of Emuhaya, which is over 20% of the population of the Sub-County (KNBS, 2012) are expected to be reached with awareness on the benefits and use of OFSP and briquettes, while at least 90 women and men from the targeted 3 villages will be trained in OFSP production and post-production management and briquetting enterprise. APC will benefit through the establishment of model OFSP demonstration plots and briquetting model enterprises that will not only augment its capacity-building programme, but also improve its income base that is currently weak. The three village-based groups/cooperatives that will be established will be continually support-supervised and mentored through appropriate training in group dynamics. The groups will be empowered to act as systems for monitoring of the academic performance of children from their associated households. Consequently, at least two children (possibly a girl and a boy, where applicable) from the 90 households targeted in the project will have their education

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<sup>12</sup> Muli, M.B. and Agili, S. *Performance of Orange Fleshed Sweet Potato as Influenced by Genotype, Harvesting Regime and Farmer Preference* accessed on 8 January 2015 from <http://www.kari.org/biennialconference/conference12/docs/PERFORMANCE%20OF%20ORANGE-FLESHED%20SWEET%20POTATO%20AS%20INFLUENCED%20BY%20GENOTYPE.pdf>

boosted through one-off support in acquiring school uniforms and other scholastic materials, with their parents' being required to take up the responsibility thereafter.

#### 4.4 Anticipated Impacts of the Project

The project's impacts are expected to be felt at household levels through increased food security, nutrition, incomes, greater participation of women and reduction in respiratory ailments owing to inhalation of particulate matter in kitchens during cooking with firewood; with indicators like improved educational attainment by children from poor households in the targeted villages, improved household nutrition, households not missing food, better living standards, reduction in household budgets spent on respiratory health challenges, etc. There is also expected to be reduced GHG emissions attributable to cooking using firewood, as well as increased community cohesion resulting from members working together. These benefits are also expected to enhance security in the targeted areas, including with regard to gender based violence, which has been a major concern by residents and security agencies. Cases of weakened children growth, sexual exploitation of young girls from the area (and its consequences), preterm deliveries and anaemia among mothers, etc., are expected to reduce.

### 6 Implementation Timeline/Schedule

KEY - 1: November 2018; 2: December 2018; 3: January 2019; 4: February 2019; 5: March 2019; 6: April 2019; 7: May 2019; 8: June 2019; 9: July 2019; 10: August 2019; 11: September 2019; 12: October 2019

Description	Timeline/Schedule											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Output 1: Awareness on the benefits of OFSP and briquettes introduced to at least 150,000 residents of Emuhaya by 31/12/2019</b>												
1.1 Project inception and planning meeting												
1.2 Rapid baseline study on the awareness levels on OFSP and Briquettes, and their benefits												
1.3 Design, print & distribute IEC materials on OFSP and Briquettes and their benefits												
<b>Output 2: At least 90 women and men from 3 villages in Emuhaya empowered with technical know-how on OFSP farming and briquetting enterprises by 28/02/2019</b>												
2.1 The 90 women and men beneficiaries of the project inducted on OFSP and briquetting benefits												
2.2 Facilitate the formation of 3 village-based groups												
2.3 A 10-day structured critical consciousness training for the groups on group dynamics, OFSP farming and briquetting enterprises												
2.4 Model OFSP and Briquette enterprises for demonstration purposes initiated												
2.5 Conduct 3 exchange visits to OFSP and briquetting enterprises for 'linking and learning'												
<b>Output 3: At least 180 school-going girls and boys from 3 villages in Emuhaya provided with school uniforms and scholastic materials; and 3 groups in the villages provided with seed capital to initiate OFSP farming and briquetting enterprises by 31/03/2019</b>												
3.1 Visits to schools and villages to recruit children												
3.2 Purchase of uniforms and scholastic materials												
3.3 Purchase OFSP and briquetting inputs and equipment for 3 groups												
3.4 Distribute items purchased in 3.2 & 3.3												
<b>Monitoring and Evaluation</b>												

## **7 Monitoring and Evaluation**

Monitoring and evaluation (M&E) will be critical to the success of the project, as it will provide us with better means of learning from the goings-on, improving service delivery, planning and allocating resources, and demonstrating results as part of our accountability to the stakeholders of the project. The logical framework (LogFrame) approach will be espoused in implementing, monitoring and evaluating this project. It will help clarify the objectives, identify expected causal links, based on the inputs-processes-expected outputs-outcomes-impact results chain.

The framework (see appendix 2) has led to the identification of performance indicators at each stage of the results chain, and will be the vehicle by which we engaged and will continue to engage partners in the project in clarifying objectives and designing activities. During implementation, the LogFrame will serve as our key tool for review of progress and taking of corrective action.

M&E of the Project will therefore be based on predesigned indicators, as presented in the LogFrame. It will seek to assess the contributions of various factors to the project's development outcomes. A number of strategies will therefore be employed in the M&E. A project inception meeting of the Executive Committee of APC will be conducted to finalize on the M&E plan and implementation of the project, in line with the resources that will have been secured for the project. A sub-committee of the committee will be mandated to undertake monthly monitoring of the project, with close assistance of the groups and project staff.

The sub-committee will report on the progress to subsequent meetings of the Executive Committee that will be held every quarter. After six months of the project, the Committee will contract a consultant to undertake a mid-review of the project; findings of which shall inform decisions on the next six months of the project. The review will be underpinned by considerations of the project's relevance, efficiency, effectiveness, impact, and sustainability. Based on the review, which will be undertaken in participatory manner, including through focus groups discussions (FGDs), the project will be re-oriented, in consultation with World Connect and the local stakeholders, particularly the groups.

A different external consultant will be hired to undertake the final review of the project after the second six months of the project. This review will inform related further interventions by APC. Throughout the project period, reports will be generated by the Project Officer that will be responsible for the project, and collated by a Programme Manager that will be assigned that role.

The reports will be discussed at the immediate next meeting of the sub-committee of the Executive Committee or the Executive Committee, whichever comes first, after which they will be shared with World Connect and other stakeholders in the project. The reports that will be discussed at the aforesaid meetings and disseminated will be of both narrative and financial nature.

## Appendices

### Appendix 1: Bibliography

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## Appendix 2: The Project's LogFrame

Project Summary	Indicators of Performance	Means of Verification	Key Risks & Assumptions
<b>Goal</b> To contribute to poverty reduction, food security, better health, reduction in environmental degradation, reduction in violence and crime, and improved children's educational attainment in Emuhaya Sub-County			
<b>Purpose</b> <ul style="list-style-type: none"> <li>○ To provide awareness and knowledge on the benefits of OFSP and briquetting enterprises in Emuhaya</li> <li>○ To develop the technical capacity for OFSP farming and briquetting enterprises in Emuhaya</li> <li>○ To provide support to poor school-going children in Emuhaya to boost their educational attainment, and to cooperatives in the villages for OFSP farming and briquetting enterprises</li> </ul>			
<b>Outputs</b> <ol style="list-style-type: none"> <li>1. Awareness on the benefits of OFSP and briquettes introduced to at least 150,000 residents of Emuhaya by 31 December 2019</li> <li>2. At least 90 women and men from 3 villages in Emuhaya empowered with technical know-how on OFSP farming and briquetting enterprises by 28 February 2019</li> <li>3. At least 180 school-going girls and boys from 3 villages in Emuhaya provided with school uniforms and scholastic materials; and 3 groups in the villages provided with seed capital to initiate OFSP farming and briquetting enterprises by 31 March 2019</li> </ol>	<ul style="list-style-type: none"> <li>✓ No. of residents of Emuhaya to whom awareness of OFSP and briquetting has been introduced</li> <li>✓ Quality of awareness introduced on OFSP and briquettes</li> <li>✓ No. of women and men empowered with technical know-how on OFSP farming and briquetting</li> <li>✓ Quality of training provided to the 90 women and men</li> <li>✓ No. of children provided with uniforms and scholastic materials</li> <li>✓ Quality of uniform and scholastic materials provided</li> <li>✓ No. of groups provided with seed support to initiate OFSP farming and briquetting enterprises</li> <li>✓ Type and quality of support provided to the groups for OFSP farming and briquetting</li> </ul>	<ul style="list-style-type: none"> <li>▪ APC Project Reports</li> <li>▪ Reports/ records by/of targeted groups</li> <li>▪ Reports/ records by/of targeted schools</li> </ul>	Funds will be available to implement the project as planned



Activities	Inputs/Resources		
<p>1.1 Undertake a rapid baseline study on the awareness levels on OFSP and Briquettes, and their benefits</p> <p>1.2 Design &amp; print IEC materials on OFSP and Briquettes and their benefits</p> <p>2.1 Induct the 90 women &amp; men that will directly benefit from the project</p> <p>2.2 Facilitate the formation of 3 village groups (at least 20 members per group)</p> <p>2.3 Conduct a 10-day structured critical consciousness training for the 90 women and men on group dynamics, OFSP farming and briquetting enterprise value chains</p> <p>2.4 Establish model OFSP and Briquette enterprises for demonstration purposes</p> <p>2.5 Conduct 6 exchange visits for linking and learning on OFSP and Briquette enterprises, and on group growth/sustainability</p> <p>3.1 Visits to schools and villages to recruit the 180 school-going girls and boys to benefit from supply of uniform and scholastic material</p> <p>3.2 Purchase the uniforms and scholastic materials</p> <p>3.3 Purchase the OFSP farming and briquetting inputs/ equipment for the groups and the demonstration enterprise</p> <p>3.4 Distribute the uniforms, scholastic materials, OSFP farming and briquetting inputs and equipment to children and the groups</p>	<p>Required Amount: \$17,324.55</p>		

### Appendix 3: Project Budget

<b>World Connect Contribution</b>	
Item (materials/equipment, stipend, travel):	Cost (USD)
<b>Output 1: Awareness on the benefits of OFSP and briquettes introduced to at least 150,000 residents of Emuhaya by 31/12/2019</b>	
1.1 Project inception and planning meeting (8 people)	
1.1.1 Logistics	240.00
1.1.2 Materials (Stationery)	60.00
1.1.3 Tea/water and snacks @ \$3 per person	24.00
1.2 Rapid baseline study on the awareness levels on OFSP and Briquettes, and their benefits	
1.2.1 Stationery and printing (at least 500 questionnaires, 2 page maximum each @\$0.05 per page)	50.00
1.2.2 Logistics (10 research assistants, 5 days, @\$2 per day each)	100.00
1.2.3 Data analysis and report-writing (professional data analyst @\$100 per day, 2 days)	200.00
1.3 Design & print IEC materials on OFSP and Briquettes and their benefits	
1.3.1 Consultant to design IEC Materials (Poster & Flier) (@\$50 per day, maximum 2 days)	100.00
1.3.2 Printing & distribution of IEC materials (500 posters @\$0.5 each, 1000 fliers @\$0.2 each, 300 T-Shirts @\$2)	1,050.00
	1,824.00

	Sub-Total
<b>Output 2: At least 90 women and men from 3 villages in Emuhaya empowered with technical know-how on OFSP farming and briquetting enterprises by 28/02/2019</b>	
2.1 The 90 women and men beneficiaries of the project inducted on OFSP and briquetting benefits	
2.1.1 Logistics	20.00
2.1.2 Materials (Stationery)	20.00
2.1.3 Tea/water and snacks @ US\$ 0.5 per person, 93 people	46.50
2.1.4 Per Diem (for off training site meals & accommodation) for 2 APC staff @ \$ 20 per person	40.00
2.2 Facilitate the formation of 3 village-based groups	
2.2.1 Oversee group elections and support their legal registration and opening of bank accounts @ \$100 per group	300.00
2.3 A 10-day structured critical consciousness training for the groups on group dynamics, OFSP farming and briquetting enterprises	
2.3.1 Logistics	50.00
2.3.2 Materials for training and Stationery	1,300.00
2.3.3 Tea/water and snacks @\$0.5 per person per day	465.00
2.3.4 Per Diem (for off training site meals & accommodation) for 2 APC staff organizers and 2 facilitators per day @\$20 per person	800.00
2.3.5 Facilitation fees for 2 facilitators for 10 days @100 per day	1,000.00
2.4 Model OFSP and Briquette enterprises for demonstration purposes	
2.4.1 Cost of leasing a 0.125 ha demonstration plot in the project area @200 pa	200.00

2.4.2 PPR water pipes (to connect water from the mains to the plot, for farming and briquetting water needs) @\$1.2 per metre, 700 m	840.00
2.4.3 Inputs and basic equipment	1,000.00
2.5 Conduct 3 exchange visits to OFSP and briquetting enterprises for 'linking and learning' @\$300 per group	900.00
Sub-Total	6,981.50

**Output 3: 3. At least 180 school-going girls and boys from 3 villages in Emuhaya provided with school uniforms and scholastic materials; and 3 groups in the villages provided with seed capital to initiate OFSP farming and briquetting enterprises by 31/03/2019**

3.1 Visits to schools and villages to recruit 180 school-going children

3.1.1 Logistics	50.00
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3.1.2 Materials/stationery	30.00
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3.1.3 Per Diem for 2 APC staff @\$20 per person, 3 days	120.00
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3.2 Purchase of uniforms and scholastic material @\$20 per learner	3,600.00
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3.3 Purchase OFSP and briquetting inputs and equipment for 3 groups @\$500 per group	1,300.00
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3.4 Distribute uniforms & scholastic material, and OFSP and briquetting inputs/equipment to the children and groups, respectively

3.4.1 Logistics	100.00
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Sub-Total	5,200.00
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**Project Support**

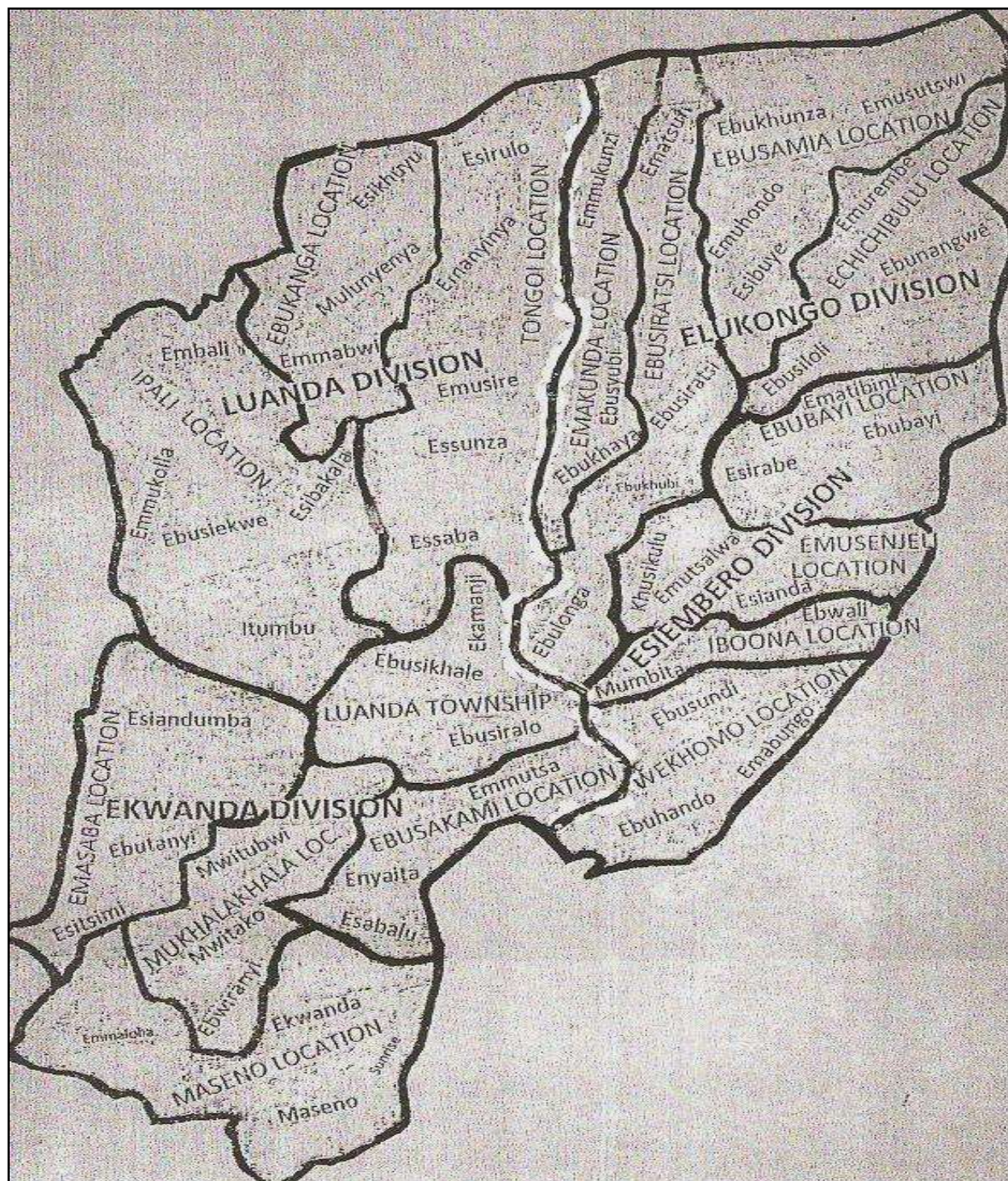
A. 10 % administration cost to cater for incidentals, such as support for office costs, e.g., rents, internet/telephone charges, other incidental office materials and travel costs, budget adjustments, staff stipend/honoraria, etc.	1,400.55
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## Contribution from APC and Local Beneficiaries

Item:	Cost
<b>I. Strengthening communication processes</b>	
i. Registration/Purchase of domain name [www.africanpridecentre.org] @\$ 10	10.00
ii. Payment for web-hosting and website design @ US\$ 300	300.00
iii. Routine project administration & support supervision (pro-rata unpaid contribution of time by Director and other staff of APC)	1,480.50
<b>III. Monitoring and Evaluation</b>	
z. Data collection costs, including logistics, meetings, KIIs, FGDs	128.00
<b>Total</b>	<b>1,918.50</b>
<b>Overall Total Cost of the Project</b>	<b>17,324.55</b>
<b>Requested World Connect Contribution</b>	<b>15,406.05</b>
<b>APC Contribution</b>	<b>1,918.50</b>



Appendix 3: Administrative Map of Emuhaya District.



Source: Emuhaya Constituency Development Fund Committee, 2013.



Appendix 4: Scanned copy of APC registration certificate.

FILE SOC/56073

FORM C

REPUBLIC OF KENYA

THE SOCIETIES RULES, 1968  
(Rule 4)

CERTIFICATE OF REGISTRATION NO. 33214

I, JOSEPH ONYANGO, DEPUTY Registrar of Societies, hereby  
certify that I have this day registered the AFRICAN PRIDE CENTRE,  
under section 10 of the Societies Act.

Dated at NAIROBI this 8TH day of NOVEMBER, 2010.

DY. Registrar of Societies

GPK 5140-20m-2/2007

NB. APC was founded in October, 2007 but was registered in November, 2010 after a thorough vetting of its operations by Kenya's security apparatus.