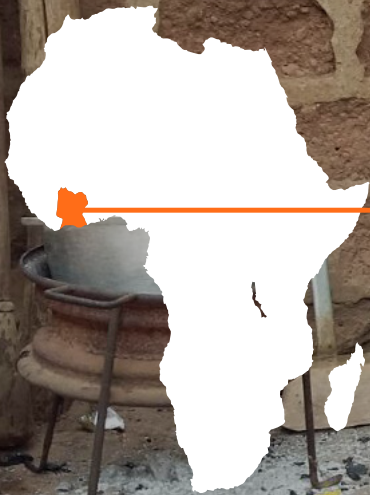


The ProcarBOOH program, Ivory Coast



REGIONS: TAI, SOUBRÉ, GAGNOA, ADZOPÉ

FARMERS: 10.000

STARTED: 2016

CERTIFICATES: UTZ CERTIFIED, RAINFOREST ALLIANCE, GOLD STANDARD

PARTNERS: IVORIAN REDD+ SECRETARY (CN-REDD+), THE IVORIAN ALLIANCE FOR IMPROVED COOK STOVES (CIACC), THE IVORIAN AGRICULTURE AND RESEARCH FUND (FIRCA), THE SOCIÉTÉ DE COMMERCIALISATION DE CAFÉ ET CACAO (S3C)



Biomass is the main fuel resource used for cooking in Ivory Coast, providing 73% of the country's increasing energy demand. Smallholder cocoa farmers almost entirely depend on firewood and charcoal, contributing to 83% and 24% of their cooking fuel respectively. Cocoonect's field surveys in the Western region estimate a consumption of about 3 Mt of firewood per household per year, by an average of 10 family members. While in urban areas fuel cooking expenses may take up to one-third of the total household expenses, the far majority of firewood in rural villages is self-collected from farms and forests. This is mainly done by women and children, who spend 2.5-3 hours per day on gathering branches.



The excessive use of firewood and charcoal by farmers bring several social- and health issues. Child labour is one of them, often the case for girls in the age of 7-12 years carrying up to 15 kg of wood on their head for several kilometers. Back at home, traditional 3-stone open fires are used to simmer local stews for a couple of hours. These fireplaces are generally situated in smaller huts to provide shelter against the rain, resulting in thick blankets of indoor smoke. The Household Air Pollution (HAP) causes respiratory infections, contributing to the premature death of 22.000 Ivorians per year, the 3rd major cause of death for children below the age of 5.

Also, there are growing concerns on the impact of energy demand on deforestation. Ivory Coast's forest cover decreased from 12 mio ha in 1960 to 2.5 mio ha today. Although firewood collection mainly seems a by-products after agricultural land clearance rather than directly driving deforestation, both are closely entwined. The growing energy demand are pushing up local prices of charcoal and firewood, and is therefore expected to intensify the exploitation of protected forests. In many villages, local firewood and charcoal prices already doubled over the past 5 years. Unfortunately, a shift to alternative resources like gas and electricity is still a long way off due to (still) a huge price gap. ►



The ProcarBOOH program (Booh means forest in the local Baoulé language) aims for more sustainable energy use in cocoa farmer households, by introducing various models of Improved Cook Stoves (ICS) to farmer households. The stoves have the potential to save household costs by reducing biofuel consumption up to 50% and 70% respectively. Based on our first cocoa farmer questionnaires, this initiative could save up to \$30 per month per household in the pre-selected areas of Tai, Soubré, Gagnoa, and Adzopé. Also, the time saved on firewood collections can be used by women for alternative income-generating activities. By tackling the firewood demand, ICS are also expected to combat the occurrence of child labour.

Finally, ICS can reduce HAP up to 80%, therefore improving health conditions of in particularly women and children and saving medical expenses. Carbon credits can be generated from reduced CO2 emissions. Gold Standard-certified ICS programs already exist in Uganda, Kenya and Ghana. In Ivory Coast, Cocoanect will collaborate with the REDD+ secretary, the Ivorian Alliance of Improved Cook Stoves (CIACC), carbon expert Quivertree, and the World Bank to commercialize carbon credits and allocate revenues to farmer communities.

We have started baseline studies with 1500 farmer households to increase our understanding on daily

biofuel expenditure and origin. In the second half of 2017, various charcoal and firewood stove models will be tested on technologic performances and cultural acceptance. After identifying the most suitable models, we aim to up-scale to 10.000 farmer households in 2 years. To realize this, production schemes will be explored both through local artisan groups, as well as industrial manufacturers. Cookstove manufacturer GreenKer already received an investment from Cocoanect to upscale his stove production to 600 units per month. Program farmers will be offered to purchase stoves on a micro-credit basis.



Parallel to the testing of stoves, a pilot study started on the production of bio-charcoal made out of rice husks. This study was self-initiated by smallholder farmer group APFNAP near Adzopé. The first results are promising, with competitive production costs of their bio-charcoal product compared to traditional charcoal.



Key-Impacts



INCOME

Saving up to \$30 per month on fuel costs per household.



CHILDREN

Up to 70% less biofuel consumption and less child labour involvement on firewood collections



CLIMATE

10.000 ICS save up to 20.000 tonnes of carbon emissions per year.



HEALTH

Reducing Household Air Pollution by 60-80%. Women and children will benefit from better health conditions and reduced medical expenses.



WOMEN

Women save up to 2 hours per day to spend on other income-generating activities. Women artisan groups will produce and commercialize stoves.



RAINFORESTS

Reducing energy consumption and lesser need of forest exploitation.