Republic of Congo:

A Public Private Partnership in Reducing Emissions from Deforestation & Degradation in a Landscape Approach

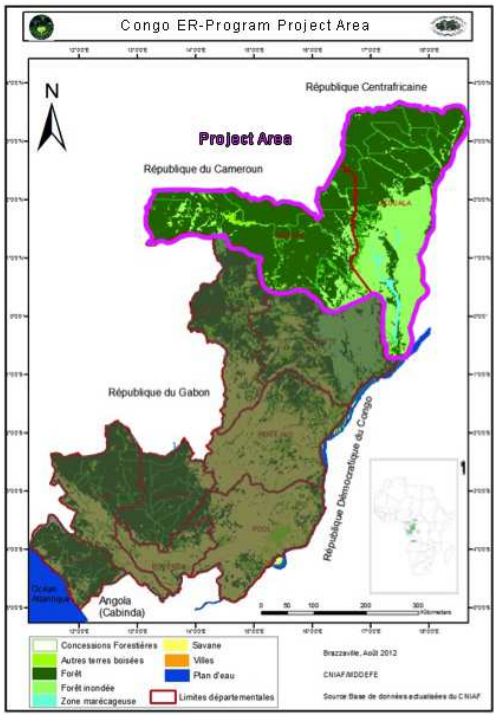
The Republic of Congo Emission Reduction Program is a collaborative effort of Congolaise Industrielle des Bois (CIB), the leading Forest Stewardship Council (FSC) certified industrial logging concession in Republic of Congo (RoC) (and wholly owned by OLAM International) to address forest based emissions in the two northern departments. The key activity of the ER-Program is to address the drivers of deforestation and degradation in the Project Area with interventions based on sustainable forest management (SFM) of industrial logging concessions (with a view towards additional certification of new concession) and avoiding unplanned deforestation (AUD) stemming from shifting agriculture with alternatives that support sedentary agriculture, i.e. cocoa production as a substitute to shifting agriculture and application of biochar as a crop yield enhancer. These interventions not only address the primary drivers in the north of Congo: industrial logging and shifting slash and burn agriculture, but also have substantial non-carbon benefits that will support the Green Economic vision of the Congo.

Location	Département Sangha & Likouala, Republic of Congo
Total Size	12.35 million hectares
Total Forest Cover	11.99 million hectares
Total Population	305,000
Key Drivers	Industrial Logging, Agriculture, Fuelwood & mining
Adjusted Reference Emission Level	11.39 $MtCO_2e$
Estimated Annual CO2e Reductions	Between 1.52 $MtCO_2e$ and 2.82 $MtCO_2e$
Estimated Total ERs 2016-2020	11.73 $MtCO_2e$
ERPA Proposal	FCPF Carbon Fund to enter into an ERPA with RoC by December 2015 to purchase all credits

Goals of the ER-Program are:

1. Decreased Degradation of the Industrial Logging Sector – with the further introduction of reduced impact logging techniques to additional concessions, new protected areas and a steady increase in forest governance, the forestry sector in the North will reduce its emissions, improve biodiversity on concessions and increase the number of certified concessions. This will improve local livelihoods and also ensure the Congo forestry sector becomes a cutting edge example of industrial logging.

2. Decreased Deforestation from Shifting Agriculture - Restarting of the Cocoa sector and the introduction of biochar sourced from wood waste will provide a strong impetus for sedentary agriculture. The alternative livelihoods aim to provide either income from a market product (i.e. primarily cocoa) and/or yield enhancements from biochar application along with carbon storage benefits.



3. Double the Efficiency of the Charcoal Sector to reduce pressures on the forest – introduction of more advanced pyrolysis techniques will halve the amount of biomass feedstock needed to produce the same amount of charcoal.

4. Deliver Sustainable and Long-term Economic Results for communities and indigenous peoples in the form of alternative livelihoods linked to market economies (agriculture and agroforestry) and increased capacity for climate change resilience.

The Northern Landscape is ideal as the two northern departments of Sangha and Likouala make up 12.35 million hectares (nearly 1/3 of the entire country), of which 97 percent is currently forested. This High Forest cover, Low Deforestation (HFLD) landscape also is made up of 15 industrial logging concession, or 5.7 million hectares of legal concessions. Most of the concessions have a management plan, and almost half the landscape is already FSC certified. With few exceptions, most shifting agriculture production in the Sangha

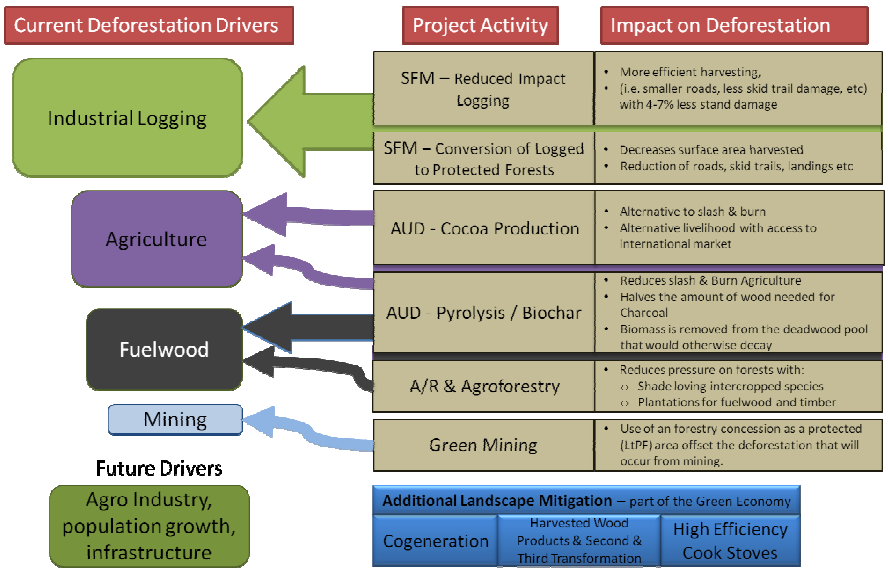
and Likouala departments is located on the concessions, generally within dedicated agriculture zones. Essentially all of the substantial emissions in the North are linked directly or indirectly to the concessions. This makes the North of Congo perfect to undertake industrial SFM emission reduction activity, as well as the AUD activity that is taking place on the concession.

Forestry & Agroforestry - a track record for success

The Public Private Partnership between CIB-OLAM and the RoC builds upon a successful similar partnership in the past to develop SFM planning systems in the Congo that has resulted in forest management laws and regulations, increased forest governance, greater accountability of concessionaires, some of the first FSC certified concessions in Africa and the development of the VPA-FLEGT partnership. It also led to the first successful SFM VCS carbon project in the Congo Basin, the North Pikounda REDD+ Project. It is upon these successes that CIB-OLAM and the RoC wish to build the ER-Program, leveraging the knowledge, capacity and skills of the private sector to redefine industrial logging in the context of climate change and the need to reduce GHG emissions.

Building Upon Successful experiences in forest carbon, CIB is leading the reintroduction of the cocoa sector in Congo with its community based Cocoa Project. 2013 field trials produced 300t Grade I & II export quality cocoa using in-situ plantations. 430 farmers are involved and CIB has sourced high quality hybrids that produce 850kg of cocoa per ha as compared with current varieties of 250kg per ha. 325,000 hybrids have been produced at the CIB nursery, and with Ministry of Agriculture support the cost will be subsidized so that the community farmers will have immediate access to the new varieties. Additionally the National replanting program PRONAR has already reforested 12,450 ha of degraded land and created 84,420 ha of agro-forestry plantations.

Strategic Alignment of the Interventions with the Drivers is a critical aspect of the Congo ER-Program. The main drivers of deforestation and degradation are industrial logging and shifting agriculture, followed by infrastructure & urban development and fuelwood gathering. The SFM interventions will primarily focus on the reduction of avoidable damage to the forest to decrease degradation in harvesting operations, increase the amount of protected areas that would otherwise be logged and shift to further concessions undertaking SFM certification. Sustainable sedentary agriculture and agroforestry will be the drive of the AUD component using the recently introduced high yield cocoa plants to reestablish the cocoa sector (could include coffee or other crops in the future) in Congo as well as the use of biochar as a yield enhancing soil additive. The ER-Program will source woody biomass for biochar production from wood that would otherwise enter the "deadwood pool" under traditional forestry practices. By converting this biomass that would otherwise oxidize, to stable carbon that can be reintroduced into the soil, the ER-Program will be able to also gain ERs from the otherwise slowly emitting deadwood pool.



Reference Emission Levels are preliminary but each are based on the best available data and will be adjusted in the Program design phase as necessary, as they will be the basis of which performance is measured. Based on feedback that has been received,

Historical REL 2000-2013	Average Annual REL (tCO2e)
Unplanned Deforestation (REL_{UPLDEF})	2,100,051
Planned Degradation (REL_{PLDEG})	2,832,475
Planned Deforestation (REL_{PLDEF})	1,345,983
Total Aggregated Sangha & Likouala Historical RE	6,278,509
Adjustment to REL (0.1% of 2010 carbon Stock)	5,112,412
Total Aggregated Sangha & Likouala REL including HFLD Adjustment	**11,390,921**

the Congo will alter its historical reference period in order to capture planned deforestation trends that did not exist during the 2000-2010 remote sensing period. The new historical reference period will be from 2000-2013. Deforestation and degradation yields annual historical forest based emissions in Sangha and Likouala of 6.27 million tCO2e. This captures the historical emissions of Sangha and Likouala, where since 2011, oil palm deforestation is being conducted on an industrial scale. Further anticipated agro-industrial conversion (documented in the nationally prepared départemental agriculture development plans) and substantial population growth justify an upward adjustment of the REL to 0.1% of carbon stock of 5.11 million tonnes of CO2e.

Emission Reductions for SFM logged to protected forests were calculated based on set asides from four logging concessions, including CIB and Mokabi-Rougier in addition, Congo Iron SA was estimated to set aside a logging concession it would purchase from the government prior to beginning operations. During project design, it is anticipated that there could be further uptake from additional concessions that have expressed interest in FSC certification. Since the cocoa component emission reductions were calculated, CIB-OLAM has received further political & financial and support from the Ministry of Agriculture that will ensure additional uptake of the cocoa activity and further boosting the potential of the Program to have additional emission reductions benefits. Biochar would be estimated as a component removed from the deadwood pool, thus reducing the emissions profile of logging operations.

Mitigation Activity	Estimated Annual Emission Reductions (tCO2e)			Estimated Emissions as a percentage of the annual REL	Estimated Emission Reductions until 2020
	Average	Low	High	Average	
Avoiding Unplanned Deforestation & Degradation					
Cocoa production avoiding unplanned deforestation	902,655	593,311	1,101,862	7.924%	4,513,273.75
Biochar	361,062	243,915	452,985	3.170%	1,805,309.50
Improved charcoal production efficiency	180,531	56,172	104,319	1.585%	902,654.75
High Efficiency Cook Stoves		Not Expected to be significant			
Avoiding Planned Degradation	-				
SFM- Reduced Impact Logging	-	Not Expected to be significant			
SFM - Conversion of logged forests to protected forests	270,796	188,720	350,480	2.377%	1,353,982.13
Green Mining (protected areas)	631,858	436,100	809,900	5.547%	3,159,291.63
Sinks					
Afforestation/Reforestation (including community Agroforestry)		Not Expected to be significant			
Totals	**2,346,902**	**1,518,217**	**2,819,546**		**11,734,512**

Land and Resource Tenure

The vast majority of the ER-Program will take place on active logging concessions with legal requirements for land use planning as a result of their management plans, (i.e. harvesting zones, protected areas, agriculture zones, etc). The ER-Program will improve the recognition of land and resource tenure through carbon contracts with individual farmers. The participating farmers will have their relevant fields GPS located, documented and integrated into the ER-Program monitoring system as well as a concession's own land use management system. This activity will strengthen any land tenure claim in the future as the Congo slowly develops its systems for acquiring legal land tenure as well as assist with future land-use planning activities.

Broad support for the Benefit Sharing Scheme will be sought from all the relevant actors, including indigenous peoples, through a series of transparent consultations. The Congo, through the logging and mining sector have existing capacity in benefit sharing schemes, particularly in relation to the 2.5 million ha of forests in the Program Area certified by FSC, which requires a consultative benefit sharing scheme for certification. The consultations will form the basis for the subsequent negotiations for the division of monetary and non-monetary benefits. The concurrent SESA process will also inform the discussion. The output will be the agreed upon Congo REDD+ Benefit Sharing Plan, compliant with relevant Congolese law. The Plan will set forth who will be a potential beneficiary and the scale of the potential benefits. The type of potential monetary and non-monetary benefits that could be received will be included, requirements that the benefits will be gender and culturally appropriate. Specifically the

benefits will also include opportunities for pre-financing of the poorest actors, i.e. CIB's cocoa seedlings are being provided to community growers at a very discounted rate and then there is an ability to re-pay the difference over time.

Buy In from Key Stakeholders has led to strong support from the Government of Congo, the private sector, and civil society. From the government the Proposal is validated by the Ministry of Forest Economy and Sustainable Development and the offices of National REDD+ Coordination. It is supported by the Ministry of Agriculture and the Départements of Sangha and Likouala. From the private sector CIB and OLAM International continue to be in-country leaders in forestry, carbon and cocoa. As the ER-Program was discussed with many potential stakeholders, buy in has been achieved with other logging concessions: Mokabi-Rougier, IFO – Danzer, Tala-TAla-SYFCO and also Congo Iron SA of Sundance Resources Ltd. The ER-Program has also received support from Wildlife Conservation Society and the CACO-REDD at the national and the Départemental level.

The Congo Emission Reduction Program will:

- **Use industrial scale SFM to reduce degradation emissions within the industrial forestry sector;**
- **Reduce emissions within the agriculture sector by substituting sedentary agriculture for shifting agriculture (with cocoa and biochar);**
- **Enhance the livelihoods of communities and indigenous peoples with monetary & non-monetary benefits;**
- **Increase the number of hectares of certified industrial logging operations in Sangha and Likouala;**
- **Piloting the introduction of biochar at a large scale both as a yield enhancer and as a carbon storage mechanism;**
- **Will leverage a public private partnership for capacity, finance and long term sustainable development in the context of REDD+**