

BLOCKFARMING
System 2.0
2013



A legal framework for sustainable smallholder treecrop production, focussing cocoa, coffee and cashew.

BALMED CORE OBJECTIVES

Balmed Holdings Ltd. is an agricultural enterprise registered in Sierra Leone since 2005. The company has 3 main business fields, which involes plantation development, trading of commodities and developing of improved livelihoods of people in rural areas.





Youth planting new cocoa seedlings. (Mobai, Kailahun District)



BALMED BUSINESS FIELDS

PLANTING

- 2000 acres of cocoa planted in eastern Sierra Leone
- Additional 4000 acres (cocoa, coffee, cashew) will be planted till 2014
- Development of new treecrop plantations with focus and cocoa, coffee & cashew
- Full community involvement
- The Balmed Blockfarming System© as sustainable investment for international development organisations and banks
- Fair land agreements benefit small scale farmers
- Official land documents signed by land owners, farmers, Balmed and government authorities
- Secured supply of commodities

TRADING

- 14,000 farmers trained, certified and registered with the company.
- 7000 farmers under fairtrade certified cooperative
- Cocoa/ coffee is handled in 10 processing centers at community level (drying, fermentation, cleaning, standardising, store)
- Full traceable supply chain
- Balmed exports its products to international customers
- Secured supply from own plantations
- Support small scale farmers

DEVELOPING

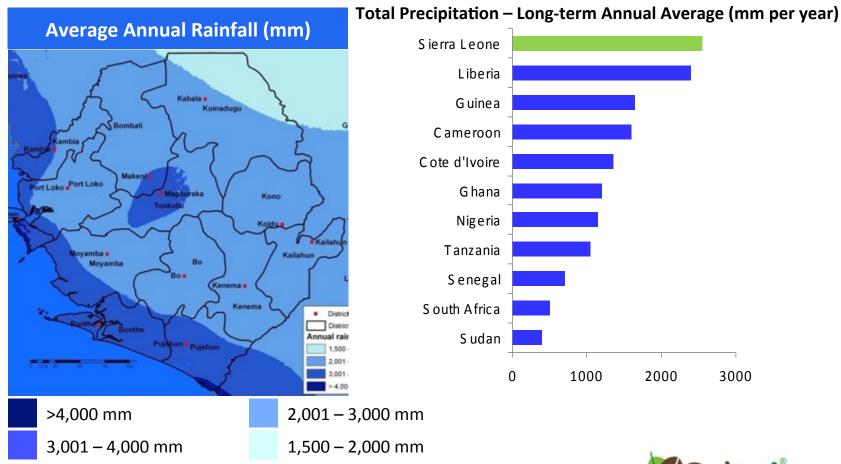
- Farmertraining on GAP (Good agricultural practices)
- Development of constant income and employment in rural areas
- Functional Adult Literacy courses provided by the company to fight illiteracy
- Capacity building and infrastructure creation in rural areas for sustainable development
- Support football clubs in the provinces. (www.hawksunited.com)



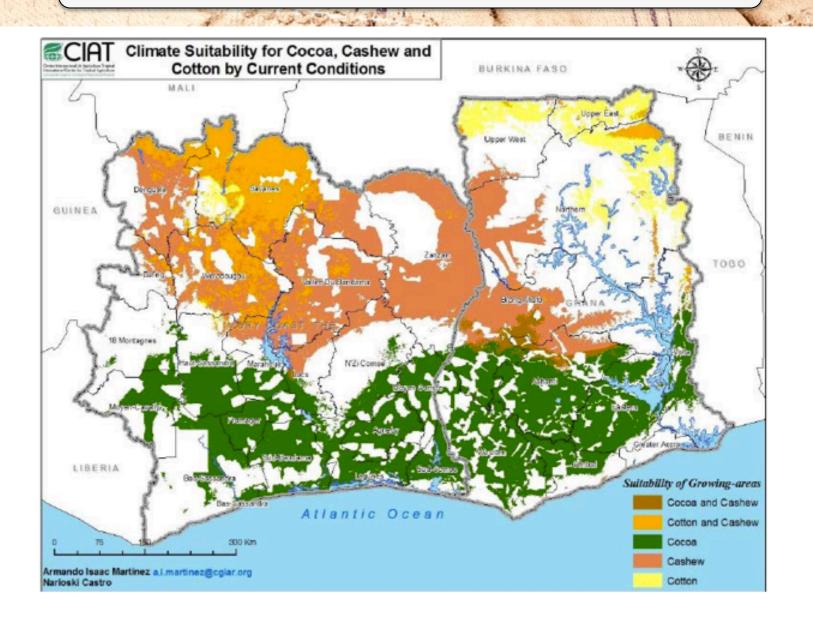
COMPANY STRUCTURE

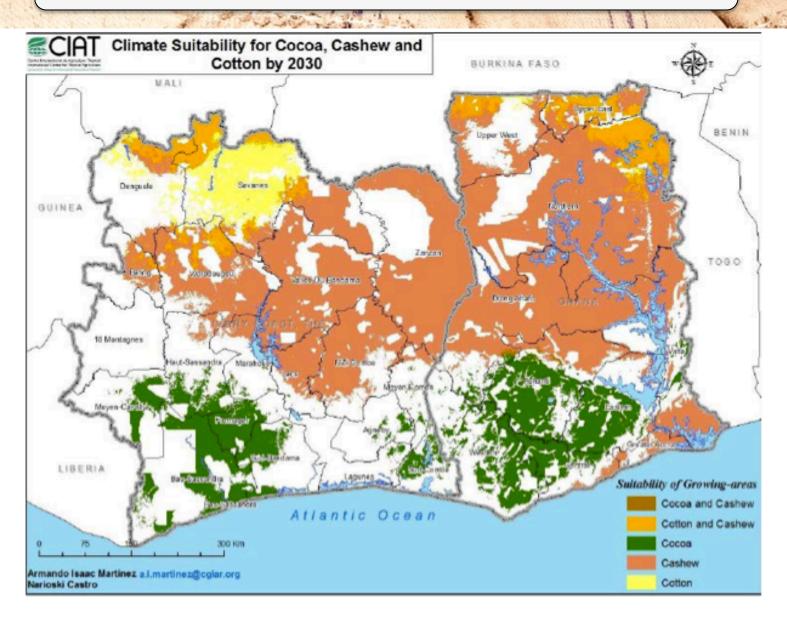
Board of Directors CEO HEAD OFFICE LOGISTICS FINANCE TRACEABILITY HR **BLOCKFARMS PROCESSING CENTER WAREHOUSE** Center Manager • Warehouse Manager • Plantation Manager Quality Manager Masterfarmer Quality Manager • Bookeeper • Farmer • Warehouse Assistant Processor **Balmed**®

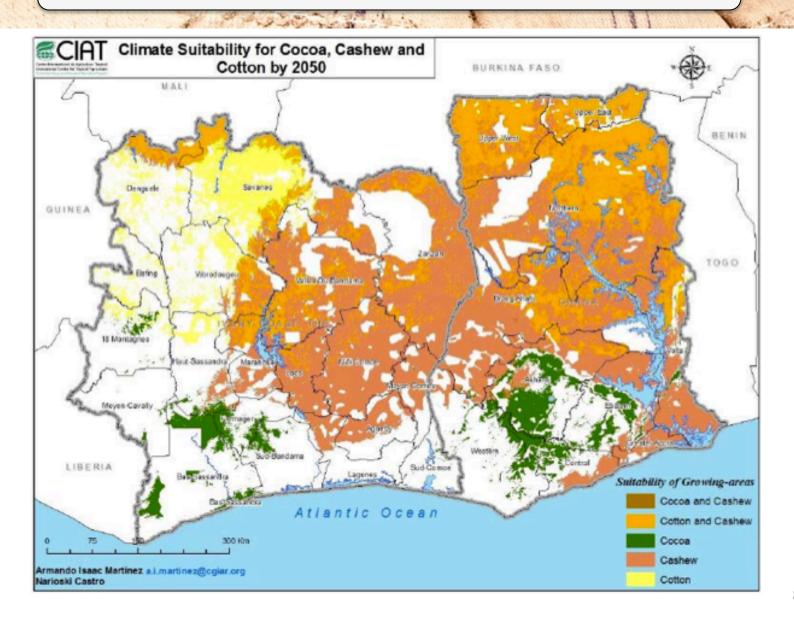
The global cocoa supply is threatend by major climate changes in the two main producing countries Ghana and Cote d´ Ivoire. Compared to other West-African countries, Sierra Leone accounts for more rainfall, which is the key for cocoa and coffee production.



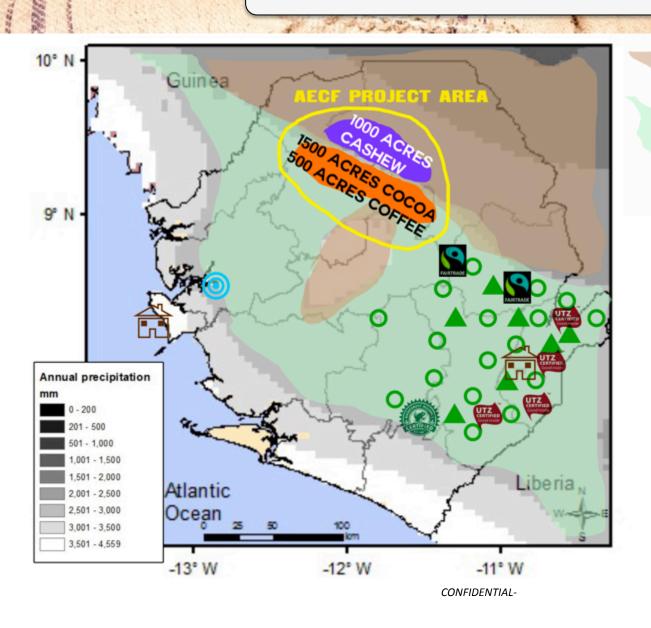
Source: SLARI (Sierra Leone Agricultural Research Institute); FAO AQUASTAT







BALMED OPERATIONAL AREA



Suitability for cashew

Suitability for cocoa and coffee



Balmed Processing Center



Balmed Buying Center



Balmed Warehouse/Offices



Balmed Pineapple Blockfarming



Rainforest Alliance certified plantations (Blockfarming)



Fairtrade certified plantations (Blockfarming)



UTZ certified plantations (Blockfarming)



BALMED BLOCKFARMING SYSTEM

The **Balmed Blockfarming System**© combats the low productivity of current cocoa farming in Sierra Leone. Balmed leases community land, with an agreed shareholding model, which allows controlled investment, and gives gradually ownership back to landowners and youth working on the land.

1,500 acres were planted in 2010/11 and 2012 in 4 locations, with best results, and an increased demand from cocoa growing communities. Land lease agreements are in place and under way for an additional 10,000 acres. These can be developed with a staggered investment of \$5 million, at an annual interest rate of 8 – 12%, assuming a 50% co-funding by development organizations

The **Balmed Blockfarming System**© attracts the first year and investment of more then USD 400,000, and the 2nd and 3rd year an additional USD 100.000 for Balmed (as then the youth farmers and landowners will have already part of the total income. These costs can be recovered by the investing company through the shares from intercrop and cocoa only after abut 5 years. Hence a public risk sharing through development oriented investors is necessary, to make the social investment in this fair and long-term sustainable land us model viable. From the 8th year onwards, the income of an estimated minimum of USD 100 / acre shall be coming from the trading of the cocoa.

Youth participating in the **Balmed Blockfarming System**© will have from the second year onwards a **minimum of USD 100 / acre**, and **from the 4**th **year onwards about USD 190 /acre**. This translates per youth with 4 acres to an **annual net income of about USD 750**, after having deducted farm maintenance costs and management costs.

The landowners income will raise from the second year onwards to about USD 90 / acre over the years.





BALMED BLOCKFARMING SYSTEM

Executive Summary

The **Balmed Blockfarming System**© is a landuse model for a fair and longterm partnership between landowners, landusers and Balmed Holding. Balmed takes the initial risk and investment in developing the farms for a productive use, and therefore has the purchasing guarantee during the period of the lease agreement from all farms involved in the Blockfarming System.

To start off, written agreements are put in place between a) the community and the land owners; b) the youths interested in farming business and the company and the land owners. The legal right to the land of the plantations will be held by the company for a period of 20 years unless otherwise agreed with the community. The company will be responsible for all the inputs (tools, poly bags etc) and the general management of these 'farm management groups', training and knowledge transfer and transparent record keeping. The youths will from groups, deciding on the manageable size for nursery and farms. They also decide on the average acreage per member, with a suggestion of minimum 4 acres per youth, which is needed for sufficient longterm income.

The GPS measured plantations will be managed by the company for a determined period and then handed over to a local management committee. This is to guarantee a professional management and knowledge transfer at the beginning, until the youths farmers have acquired all necessary skills to do so.

The model implementation follows the crop calendar – starting the nurseries in December and January, passing on to land preparation, for outplanting from May onwards. After that, there will be an annual maintenance of the farms with underbrushing, shade management and in later years also adding pruning. For a close quality management and traceability, all plantations under the **Balmed Blockfarming System®** are placed under one of the International certifications (UTZ, organic, Rainforest Alliance, Fair Trade). Thus premiums of up to USD 200/ton shall be attracted.

The harvested cocoa will be shared 1/3rd each - land owners/community, youths and the company - after directly attributed costs respectively. The management costs are fully covered by the company. After 8 years the 1/3 share by the company will be handed over to the youths—together with the management responsibility going o the management committee trained and functional by then. The intercrop (plantain or pineapple) will be shared 60% to youths, 10% to landowners and 30% for the company.

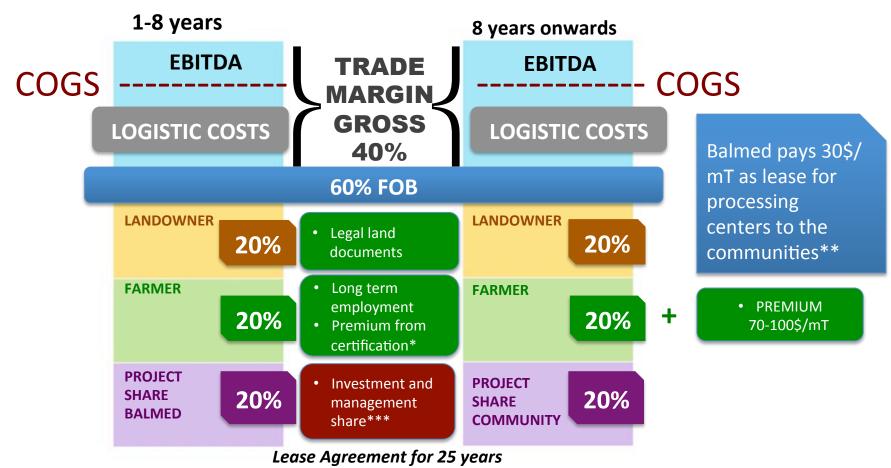
Costs and Benefits

The overall costs for 1,000 acres of new plantations are about US\$ 700.000.

The **Balmed Blockfarming System©** assures a long term sustainable employment for young farmers. 49% of the overall income goes to them. This translates to more then USD 100 / acre in the second and third year, and later on an estimated USD 190 / acres, i.e. Over USD 750 per youth farmer – this after deducting the maintenance costs for the farm from the 4th year onwards, and including management costs from the 9th year onwards. The landowner have a share of 23%, or USD 90 / acre. Balmed taking a share in the crop initially, later makes its income through the margin on cocoa trading from the farms. The risk of the company is however that the initial investment will only be paid off after minimum 5 years, if there is no other financing contributions; and paid off after 3 years, assuming a 50% share of the investment costs by development partners.



STAKEHOLDER BENEFITS



^{*}Premium for certified commodities from the 4th year onwards

^{***} The management and investmentshare is part of Balmeds exit strategy and will be handed over to the community after the 8th year.



^{**} The lease amount shall be used for community development purposes

STAKEHOLDER INCOME: 100 acre scenario



Balmed Example: Income per farm-group in the Balmed Blockfarming System

Total land offered acres		100				
Landowner PK Allieu 20ac		20%				
Landowner Community 20ac		20%				
Landowner Mohamed 25ac	ner Mohamed 25ac					
Landowner Momoh 20ac	wner Momoh 20ac					
Landowner Sam 15ac		15%				
Number of farmers		25				
Intl. Price	\$	2.300,00				
Premium per mT for farmer	\$	70,00				
Share landowner		20%				
Share farmer		20%				
Estimated production in tons		28,3				
Crop	Coco	a				

Balmed will supply all tools for nursery, outplanting and farm management.

Balmed will supply food for work for the outplanting and farm-management.

	Year1	,	Year2 Ye		Year3		Year4		Year5		Year6		Year7		Year8		Year9	
Yield assumption	(0%		0%		0%		0%		13%		33%		68%		92%		100%
Farmer Income per farmer	\$ -		\$	-	\$	-	\$	-	\$	77,99	\$	197,99	\$	407,97	\$	551,96	\$	599,96
Landowner PK Allieu: 20ac	\$ -		\$	-	\$	1	\$	-	\$	338,47	\$	859,19	\$	1.770,45	\$	2.395,31	\$	2.603,60
Landowner Community: 20ac	\$ -		\$	-	\$	1	\$	-	\$	338,47	\$	859,19	\$	1.770,45	\$	2.395,31	\$	2.603,60
Landowner Mohamed: 25ac	\$ -		\$	-	\$	-	\$	-	\$	423,09	\$	1.073,99	\$	2.213,06	\$	2.994,14	\$	3.254,50
Landowner Momoh: 20ac	\$ -		\$	-	\$	-	\$	-	\$	338,47	\$	859,19	\$	1.770,45	\$	2.395,31	\$	2.603,60
Landowner Sam: 15ac	\$ -		\$	-	\$	-	\$	-	\$	253,85	\$	644,39	\$	1.327,84	\$	1.796,48	\$	1.952,70



COMMUNITY INCOME: 2000 acre scenario



EXAMPLE: INCOME CALCULATION FOR THE COMMUNITY

Community	Potoru	
Acerage Blockfarming in acres	2000	
Expected yield in tons from the blockfarms in mT	566	
Additional cocoa from other areas delivered to the center in mT	200	
Lease payment per mt in USD \$	\$	30,00
Premium payment to farmers per ton	\$	70,00
Intl. Price	\$	2.300,00

	Sa	les Income	Cert-Premium		otal income	Remarks
Income from the blockfarms for the community	\$	781.080,00	\$ 39.620,00		820.700,00	= 60% of Intl. Price (FOB) + Certification Premium
Expenses for purchase of cocoa/coffee (Blockfarms)						
Payout to landowners	\$	260.360,00		\$	260.360,00	= 20 % Share
Payout to farmers	\$	260.360,00	\$ 39.620,0	0 \$	299.980,00	= 20% Share
Total payout to farmers and Landowners				\$	560.340,00	
Expenses for the processing center and plantations						
Liason Committee Share 2% of Intl. Price	\$	26.036,00				= payments to the commitee members
Farm management	\$	40.000,00				= 20 \$ per acre, farm maintenance
Salaries for 10 permanent staff	\$	18.000,00				= 150 \$ per staff per month
Salaries 30 casual labourers	\$	16.200,00				= 3 \$ per labourer per day (180 days per year)
Salaries for management & consultancy	\$	14.000,00				= money for professionals and consultants
Trading Management (jute bags, calculators, phones, IT)	\$	22.980,00				= 30 \$ per ton
Center management (fuel, bikes, trucks, maintenance, supplies)	\$	42.000,00				= 3500 \$ per month
Total expenses of center per year				\$	179.216,00	
Income from regular trade 200 MT: 70% of intl. price (sales to Balmed)	\$	322.000,00		\$	322.000,00	
Expenses for purchase of cocoa/coffee (Existing plantations)						
Payment to farmers: 60% of international price	\$	276.000,00		\$	276.000,00	= 60% of intl. Price paid to the farmer

Income (Blockfarms + existing plantations)	Expenses	Profit without lease payment	Balmed Lease payment for center	TOTAL PROFIT FOR THE COMMUNITY		
\$ 1.142.700,00	\$ 1.015.556,00	\$ 127.144,00	\$ 22.980,00	\$ 150.124,00		



INVESTMENT CASE: BALMED BLOCKFARMING SYSTEM®

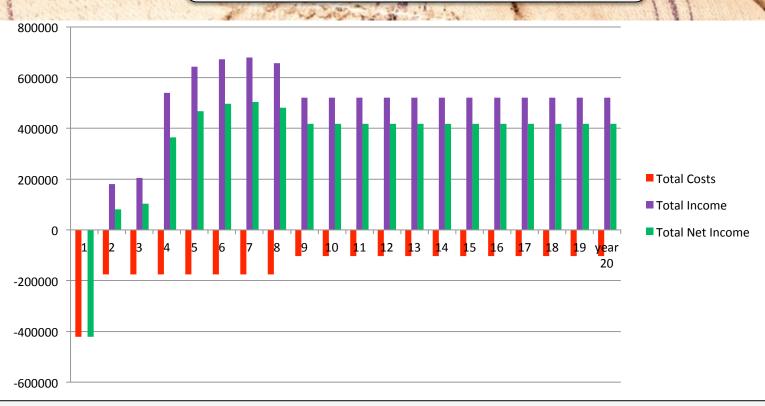


Total accumulated costs and net income for investment in 10,000 acres

Developing 10,000 acres under **Balmed-Cocoa-Blockfarming-Model**© requires an overall investment amount of USD 6.2 million (see red dotted line), calculating a 8% interest rate on the investment. Targeting 2,000 acres of new plantations in the first year, 3,000 acres in the second, and 5,000 acres in the third year of investment, the annual investment amount will be staggered as follows: year 1 – USD 0.85 million; year 2 – USD 1.5 million; year 3 – USD 2.7 million; year 4 – USD 0.7 million.

The annual net income will be positive from the 9th year onwards, after the repaying the investment with an assumed 8% interest rate. The income comes mainly from the traded cocoa, being in the 10th year 1.5 USD million, and stabilising later on at USD 1.3 million annually. Assuming 50% contributions for investment by development partners (besides the reduced interest rate of 8%), the repayment can start already after 3 years.

CASHFLOW FOR 1000 ACRES COCOA BLOCKFARMING



Total costs and net income per 1,000 acres

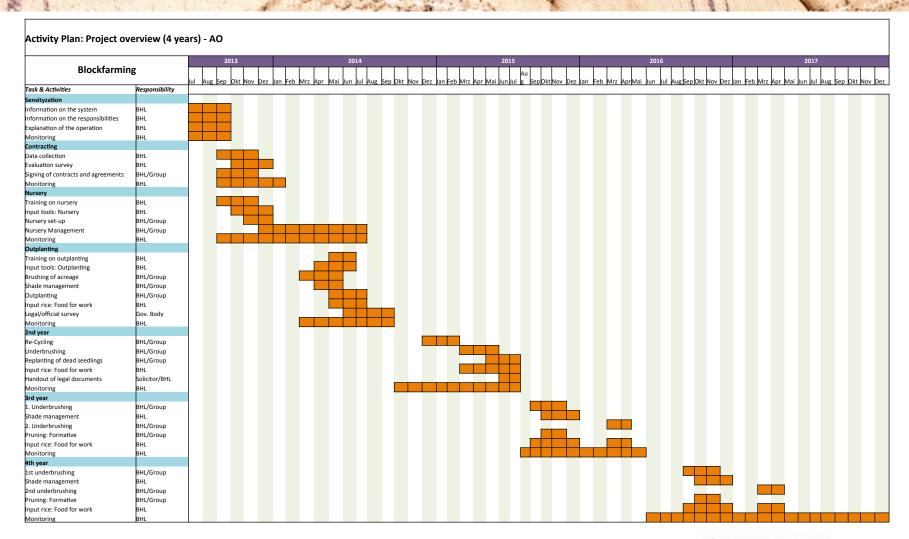
The **Balmed-Cocoa-Blockfarming-Model**© requires the first year a high investment of about USD 420,000, followed by annual costs of USD 175,000 from 2nd to 8th year, and USD 100,000 in the subsequent years.

The income increases annually as follows: 2nd year USD 180,000, 3rd year USD 200,000 and 4th year USD 540,000, stabilising from the 5th year onwards at USD 520,000.

When deducting management and maintenance costs of USD 175,000 annually, and USD 100,000 from the 9th year onwards, a total net income of up to USD 500,000 (6th/7th year) and later on USD 420,000 can be expected.



ACTIVITY PLAN





KEY PERFORMANCE INDICATORS FOR 2014



Current Blockfarming operations backed by international development agencies







PLANTATION ESTABLISHMENT OF 6000 ACRES NEW TREECROPS IN EASTERN & NORTHERN SIERRA LEONE USING THE BALMED BLOCKFARMING SYSTEM

CREATE STABLE INCOME FOR 1500
HOUSEHOLDS WITH AN ADDITIONAL YEARLY INCOME OF MIN. 525\$

300 PEOPLE EMPLOYED IN 9 COMMUNITY OWNED PROCESSING CENTER

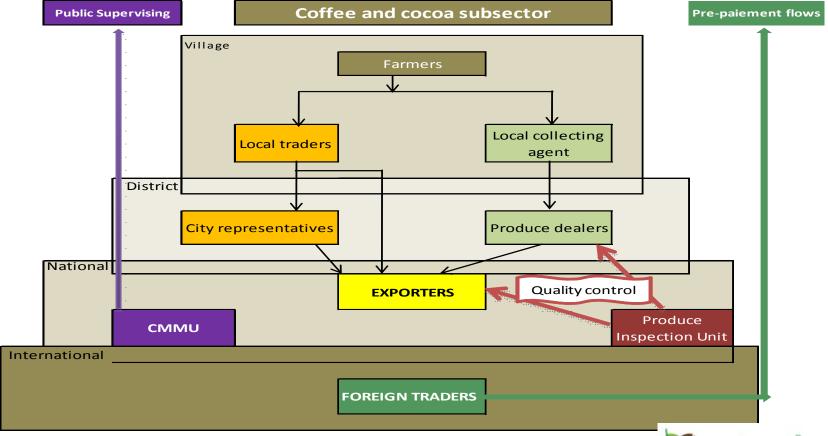
TRAINING OF 2000 YOUTHS ENGADED IN THE PROJECT

5000 BENEFICIARIES INVOLVED THROUGH PROJECT IMPACT

CONFIDENTIAL-

COCOA AND COFFEE VALUE CHAIN IN SIERRA LEONE

Exporters are in the center of Sierra Leoneans cocoa and coffee trade. Quality management is mainly done by the exporters, with control by the Produce Inspection Unit. CMMU has the public supervisory role. So far, there is hardly any investment being made in to improve farming practices. As a result quality of cocoa produced remains low quality



TRACEABLE SUPPLY CHAIN



Farm-Processing-Buyer

Balmed Holding Ltd. strives for a fully traceable supply chain,

linkes its Balmed Blockfarming-System© closely to the existing 10 Balmed-Cocoa-Processing-Centers© which are spread over the cocoa producing season in the east of Sierra Leone.

In 2010, three Balmed Processing-

Centers© were selected to start with each 100 to 300 acres. This split was done for a) minimising risks, b) get comparative data, c) enhance competition amongst participating communities, especially the youths.

After evaluation, this pilot was expanded in 2011 to another 1000 acres and another 500 acres are underway in 2012, totalling then 2,000 acres planted by smallholders.

Each location under **Balmed Blockfarming-System®** is put under a specific certification programme, and linked with an **international buying company**.

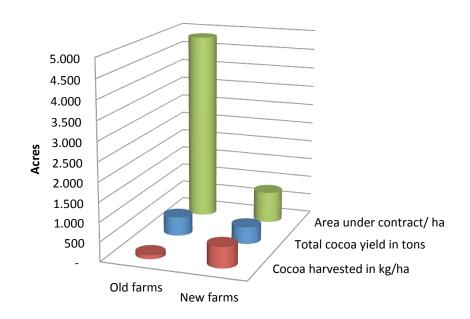
On condition of further funding partners, additional communities will be added gradually.



RATIONALE FOR THE BALMED BLOCKFARMING SYSTEM

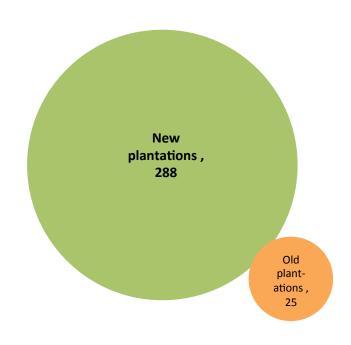
The yield surveys on old and new plantations show that new farms produce per acre over 5 times more than old ones. Comparing the net income, new farms give 288 USD/ acre, which is even more then 11 times of the income for old farms with only 25 USD/ acre. (GIZ Survey)

Balmeds' old and new cocoa partnering farms



	Old farms	New farms
■ Cocoa harvested in kg/ha	101	538
■ Total cocoa yield in tons	490	435
Area under contract/ ha	4.856	809

Income of one acre old vs. new cocoa plantation in USD





QUALITY IMPROVEMENT



Quality

So far **7** Balmed-Cocoa-Processing-Centers© and **17** Balmed Buying Stations© are established.

The Processing centers and buying stations are located in rural farming communities to have direct access to the farmers and the products.

The quality is controlled and monitored according to international standarts.

Certification

All farms under **Balmed Blockfarming System©** are put under an international certification scheme, like UTZ, Fairtrade, Rainforest Alliance or Organic.





Balmed furthermore sources its commodities from over 14.000 company registered, trained and certified farmers





All products are fully traceable back to its producer

Traceability

The international consumer demand more and more fully traceable products. This is possible with the **Balmed Blockfarming System©**. Balmed joined partnership with the german based software developer SAP for implementation of a traceability software using smartphones and barcodes



PROJECT PARTNERS

The Balmed Blockfarming System is an international multi-stakeholder project aiming to improve livelihoods in rural areas.































TRAINING MODULES

Balmed uses a company specific *Module Training System* which covers all fields, Balmed is working in. The *Module Training System* is a compilation of training materials, such as leaflets, poster and manuals, specifically designed for the needs of training. The materials are used in the training lessons for staff and farmers.



RISK ANALYSIS: MITIGATION AND REWARDS

Risks and Mitigation Strategies

- Competition with other traders ➤ Close linkage with communities, farmers groups, and cooperatives, through premium payments, trainings, processing centres close to the producer ensures steady supply
- Low productivity of old plantations ➤ Training and farm management support including new plantations mitigate this risk.
- Low quality through poor farm management and handling
 Farmmanagement, training and processing centres including certification.
- Operational risk ➤a) Government monopolising trade through cocoa board ➤ this has been mitigated by joint donor response. b) Safety of produce in the course of business ➤ Insurance covers goods-in-transit and in the warehouse, including strong internal control system
- Market risk ➤ buyer concentration improved quality through processing centres, and traceability system, and farmers training attracts divers international buyers.
- Price volatility ➤ Cocoa price has currently dropped, but prices are expected to increase again in the near future.
- Financial risk ➤ ability of Balmed to meet up with its financial obligations. This is mitigated by the profitability of the business as reflected in the projected cash flow, and good business track record of the company.
- Foreign exchange risks ➤ Revenues of the company is in US\$.
 Company spends in local currency and earns in foreign currency.

Rewards

- Market Ability to capture margin increase of 20% through Certification premiums: Fair Trade, Organic, Rainforest Alliance and Utz
- Supply Ability to increase and secure supply as well as minimise overheads by leveraging direct donor support to farmers
- Financials High margin growth business with limited downside
- Scale Potential to reach scale in cocoa, coffee and cashew
- Development impact Youth employment and poverty alleviation – Business opportunities for rural youth, with high percent of women employment
- Economic impact foreign exchange earner for the country and increased contribution to GDP
- High profile development story –excellent track record of business and managing director and key staff



RISK ANALYSIS: ESG, ACML

For each investment it is important we assess the Environmental, Social and Governmental (ESG) risks

Balmed classifies as ESG risk category B. ESG risks associated with Balmed are projected to be medium.

- Environmental risks are minimal. Fertilizers and pesticides are not permitted for organic farming and are very rarely used in Sierra Leone. Some farmers already engage in intercropping and this number is expected to increase as NGOs train farmers on intercropping and its benefits.
- Social risks to be monitored in agriculture related investments, particularly cocoa farming, are labour conditions and child labour. Based on field visits and discussions with Balmed this risk in Sierra Leone is not considered to be high. There are no migrant farm workers in Sierra Leone.
- The Corporate Governance risk is not high and proper measures will be put in place.

Investing in Balmed has a large development impact:

- Support direct employment of now 10,000 and future 30-50,000 farmers in rural areas of Sierra Leone
- Support organic, Fair trade, Utz, and Rainforest Alliance certification thus increasing revenues for farmers
- Support implementation of formal Corporate Governance structures to ensure transparency and accountability in Balmed.

All Balmed investments comply with Anti-Corruption and Anti-Money Laundering (ACML) Policy

- Balmed is believed to be in compliance with all applicable Anti-Corruption and Anti-Money Laundering Legislation.
- Balmed has its Articles of Association, Articles of Incorporation and audited financial statements for the past five years.
- Balmed Holdings is a limited liability company.
- The chief promoter as well as his management and advisory team have a good reputation with the business people in Sierra Leone and outside of Sierra Leone with whom they engage to do business.
- If and when the Balmed funding request is approved, the Know-Your-Customer concept and Corporate Social responsibility policy will be sustained.



BENEFITS AND IMPACTS

Foreign Exchange Generation/ Savings

Quality improvements of 5-10% for 18.000 MT of exported cocoa amounted in 2010 to an estimated 5 million USD added foreign exchange. Increased quantity of cocoa and coffee of annually about 5-10 % attracts another 3-5 million USD additional foreign exchange for Sierra Leone.

Balmeds' contribution to these added foreign exchange earnings are in the range of about 4% regarding the trade volume alone, however its business model of farmers support stimulated the whole cocoa sector, leading to the above mentioned improvements.

Contribution to fiscal revenues

The Government of Sierra Leone has a 2.5% levy on cocoa exports, amounting to about 1 million USD annually. Other taxes for business registrations, etc. are not considered here. An increase of quality and quantity of cocoa/ coffee leads to a minimum of 100.000 USD added fiscal revenues through the current levy system.

Employment generation

The company has started operations in 9 community owned processing centres for cocoa/coffee. These provide direct employment for 300 most young people, of which about 40% women. Besides, the different services attached (e.g. transport) employ another 300 people. Additionally, 2.000 youth find short term employment/ income through food for work programmes in cocoa/coffee rehabilitation (in collaboration with GIZ/IFAD/ WFP).

Enterprise Development

10 village owned processing and 19 collection and storage centers are managed by companies agents. Additional 2 centers are managed under cooperatives, and other 4 are under construction. Balmed provides business training for all its staff, agents and management units.

Environmental Sustainability

Balmeds business model is based on sustainable production base. All 10.000 farmers who are in trading relations with Balmed certify their produce under organic, Fair trade and/ or other sustainability standard, and thus attract additional premiums of 200 USD/ MT. Balmed and cooperating NGOs provide training for farmers for appropriate farm management practices – e.g. Intercropping, shade management etc.

Local Content promotion

The current trade system does not encourage farmers to produce quality cocoa/coffee. Hence the players are locked in a low-quality, low-price spiral. However with new incentives by the innovative trading business , 10.000 farmers are able to increase their income by about 30% through improved quality and increased quantity, resulting in an av. of 130 USD/ farmer. This amount increases further after 3-4 years, with new plantations to be harvested.

Integration (regional/global)

The improved quality of cocoa/coffee has attracted new players, enhancing competition, and providing better market opportunities for Sierra Leonean cocoa/coffee. Also the improved quality has lead to an improved image and price for Salone products.

Value Addition through Processing

Balmed is the first cocoa/coffee trading company having built 9 local processing centres, improving post-harvest treatment, and thus quality of cocoa and coffee.

Other Social Benefits

Balmed has linked up recently with NGO Sankofa to run functional literacy courses for cocoa farmers and their family members in some processing center. Furthermore, Balmed supports 40 futball teams in supplying communities. Premium paym slp local ownership of development prioriti

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POSSIBLE SUPPORT FOR BLOCKFARMING

- Tools for Planting (Shovels, Buckets, Polybags...)
- **Soil Analysis Laboratory**
- Hybrid seeds
- Financing



CONTACT



BALMED HOLDINGS LTD.

2b Africanus Road, Kissy Dockyard
Freetown
SIERRA LEONE

Tel.: +232 76 649660

+232 33 649660

mail@balmed.org

www.balmed.org