



VANGA BLUE FOREST ANNUAL REPORT 2020

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Project overview

Reporting period	1 st January 2020 - 31 st December 2020		
Geographical areas	Vanga mangrove forest		
Technical specifications in use	Vanga Blue Forest		
	Historical	Added/issued this period	Total
No. of households with PES agreements (where applicable)	0	0	0
No. of community groups with PES agreements (where applicable)	1	0	1
Approximate number of households (or individuals) in these community groups (if known)	974 households	0	974
Area under management (ha) where PES agreements are in place	460	0	460
Total PES payments made to participants	0	0	0
Total sum held in trust for future PES payments (USD)	0		
Allocation to Plan vivo buffer (tCO ₂)	0	1126	0
Saleable emission reductions achieved (tCO ₂)	0	4506	
Unsold stock at time of submission (PVC)	0	0	0
Total unsold stock (PVC)	0	0	0
Plan Vivo Certificates (PVCs) issued to date	0		
Plan Vivo Certificates requested for issuance	4506		
Plan Vivo Certificates available for future issuance (REDD only)	0		
Total PVCs issued (including this report)	4506		

PART A: Project updates

2020 was the first year of operation for VBF. Hence this report is shorter than is likely for future reports, since we had no credits for sale. However we were able to fund our operations from start-up funding (in particular from funds provided by the Leonardo DiCaprio Foundation) which was raised for this purpose. Hence our focus was on establishing structures and processes, recruiting staff and committee members, communicating with and educating local stakeholders and beginning our forest protection and monitoring activities. These activities were achieved in the context of the Covid-19 pandemic which has made normal operations, such as collective field work, difficult or in some cases impossible.

A1 Key events

17th December 2019 - The Project coordinator was invited to participate in the Youth and Blue Economy Multi-stakeholder Forum at Pride Inn Beach Resort and Convention Centre Mombasa. Its main foci were Policy and Research, Youth and Leadership, Entrepreneurship, Talent and Innovation.

29th May 2020 - Vanga Blue Forest - Community Based Organisation mobilized Covid-19 rapid support donations to support in cushioning and reducing the shock that the pandemic had on the community. Vanga being geographically positioned along the Kenyan coastline and adjacent to the Tanzanian border, fishing which is the main source of livelihood accounting for 80% was greatly impacted. The donations included food, facemasks and soap. The criteria of selection were orphans, widows, elderly and those living with disabilities. Through the donations we managed to reach out to 83 households.



Fig 1: The carbon offset committee members distributing food to residents of Vanga, Jimbo and Kiwegu village.

8th June 2020 - Vanga community marked the World Oceans Day, themed “Innovation for a sustainable ocean” by conducting a beach cleanup along Vanga sea wall stretch.

The event comprised of thirty five members of the community including Vanga, Jimbo and Kiwegu (VAJIKI) Community Forest Association (CFA) committee, Mwambiweje and Mwagugu user groups, representatives from Kenya Fisheries Services, Kenya Marine and Fisheries Research Institute and Chombo media.



Fig 2: Youth collecting waste nets adjacent to the Vanga sea wall

2nd July 2020 - VBF held a Covid 19 education event within Vanga village with an aim of reminding the general public to take heed of the Covid-19 precautions a way of embracing the new normal lifestyle. Those who participated in marking the event were VBF committee members, the Chief, Public health officer, Head police officer and Beach Management Unit representative of Vanga village. The activities engaged in were educating people on the importance of social distancing (at the fish and cloth market), distribution of masks and posters and disinfecting motorcycles at the fish market, which are used as a means of transporting fish to other areas.



Fig 3: A committee member disinfecting a motorcycle.

17th 18th and 19th September 2020 - Community consultative meetings between Vanga Blue Forest Community Based Organization and community members were convened. The community members were to decide which community projects were -to be developed with start-up funds from the Leonardo DiCaprio Foundation held by Edinburgh Napier University. Each village identified its own priority project. Vanga prioritised construction of an access road, Jimbo prioritised restoration of a water logged nursery school and Kiwege construction of furniture for the medical dispensary.



Fig 4: A community consultation meeting (baraza) held at Kiwegu village.

21st November 2020 - Community Action for Nature and Conservation (CANCO) in collaboration with Jimbo Environmental Group (JEG) invited VBF to mark the World fisheries Day at Jimbo village by participating in planting 2,700 mangrove seedlings. About 65 people participated, with the majority being women.



Fig 5: Jimbo community members taking part in mangrove planting

27th November 2020 - VBF team organised a period poverty support project in Kiwegu village with funds sourced via ACES from donations. The aim of the support action was to educate the young girls on menstrual education and eliminate school absenteeism due to lack of menstrual sanitary products. A total of 108 girls obtained a pack of five reusable sanitary towels and a bar of soap. This was intended as a pilot project, responding to a request from the community, and its success means we will aim to continue and expand it next year.



Fig 6: Period poverty project at Kiwegu

7th - 9th December 2020 - Wildlife Conservation Society (WCS) in collaboration with Kenya Marine and Fisheries Research Institute (KMFRI) experts in mangrove and seagrass ecosystems co-hosted a meeting to bring together communities and government representative to a Blue Carbon ecosystem training under the Blue Action Fund. The VBF coordinator, Mwanarusi Mwafrica, presented on community participation with regards to project implementation and governance. The aim of the training was to equip the communities with skills on the blue carbon ecosystems and bundling of seagrass into the ongoing mangrove carbon project.

A2 Successes and challenges

Challenges

The emergence of Covid-19 has had a great impact on VBF activities. The group managed to conduct two monitoring activities only instead of three, these were at the beginning of the year and at the end.

A3 Project developments

An assistant project coordinator and two forest scouts were recruited as new employees of the project. The assistant project coordinator is responsible for, among other things, assisting the project coordinator in the daily project management, both organizational and substantive matters including planning, monitoring and coordinating the project to ensure its results are as per the project's annual work plan. The scouts are responsible for carrying out surveillance on a regular basis in the Vanga Blue Forest project areas in order to ensure that no destruction of any sort takes place.

A4 Future developments

The project area covers 460 ha of 4428 ha of Vanga mangrove forest. Thus as an organisation we anticipate to increase the number of forest scouts in order to reinforce surveillance within Vanga mangrove forest. Plans for the future include incorporation of seagrass, contingent on successful implementation in our sister project Mikoko Pamoja and with local consent and support.

PART B: Project activities

B1 Project activities generating Plan Vivo Certificates

Vanga Blue Forest has a single technical specification that covers four activity areas, involving avoided deforestation/forest recovery in areas 1 and 2 and mangrove reforestation and ecosystem rehabilitation in areas 3 and 4 respectively. The responsibilities for and benefits from these activities are shared communally within the single project community organisation.

Table B1: Project activity summary

Name of technical specification	Area (Ha)	No. Of small holder household	No of community groups
Avoided degradation Area 1 (Sii island)	199*		1
Avoided degradation Area 2 (mainland)	247.5*		1
Mangrove reforestation	5		1

Area 3			
Ecosystem rehabilitation (Area 4)	5		1

*Initial areas of forest are 200 (area 1) and 250 (area 2) ha. In order to take a conservative approach, reduced degradation of 80% due to project interventions is assumed. These lower values of 199 and 247.5ha will be given throughout the project accreditation period as an average accounting for forest shrinkage.

B 2 Project activities in addition to those generating plan vivo certificates

Publicity and awareness raising

VBF has been engaging with government and other NGOs in its activities with an aim of increasing awareness of the project on the general public. One of the platforms used to publicize the project is twitter. The project was featured in a local and international media platform. (See attachment).

PART C: Plan Vivo Certificate Issuance Submission

Tables C1 and C2: Statement of tCO2 reductions available for issuance as Plan Vivo Certificates based on activity for reporting period 01/2020– 12/2020

Area ID	Total area (ha)	Tech. Spec	tCO2 available from previous periods	Gross total tCO2 achieved this period	Total tCO2 achieved this period (after 5% leakage ¹)
Project area 1	199	VBF	0	1,812	1721
Project area 2	247.5	VBF	0	4,777	4538
Project area 3	5	VBF	0	0	0
Project Area 4	0.25	VBF	0	0	0
TOTAL	451.75		0	6589	6259

Net total tCO2 achieved this period	Net total after 10% forfeit ²	No. of PVCs allocated to the buffer account	No. PVCs requested for issuance	tCO2 available for future issuances
6259	5633	1126	4506	0

¹ Leakage does not generate credits but instead represents a percentage of carbon sequestration that is not converted to credits, as this offsets any loss of carbon outside of the project area due to project activities. The carbon lost to leakage should be removed from the gross carbon sequestration value before the buffer or issuance values are calculated

² This sum is the amount from areas 1 and 2, after subtraction of an additional 10% loss due to not meeting monitoring targets in areas 3 and 4 (see table A1.1) and failure to establish a woodlot this year because of Covid 19.

The tCO₂ reductions calculations given in this report follow the IPCC tier 1 figures given as projected growth in the PDD, rather than empirical data on avoided degradation of mangrove forests in areas 1 and 2 on monitoring data collected from the project site, as outlined in the technical specifications. A full explanation of the reasoning for this is provided in Annex 5.

This issuance is based on a signed PES agreement with Vanga Blue Forest Community Based Organisation, as the relevant user group of Vajiki Community Forest Association, complying with all the minimum requirements stated in this agreement.

PART D: Sales of Plan Vivo Certificates

As this was our first year of operation, generating ex-post credits, there were no sales of plan Vivo Certificates. Funds for project running and disbursement for community activities came from start up funding, particularly from the Leonardo DiCaprio Foundation.

PART E: Monitoring results

E 1: Ecosystem services monitoring results

Monitoring results that support the request for new issuances are presented in annex 1. Monitoring results were met for activity areas 1 and 2. Penalties were applied to credits request since areas 3 and 4 were not measured due to the restrictions from Covid 19.

E2: Maintaining commitments

No participants have resigned from the project this year.

E 3: Socioeconomic monitoring

Start up funds were transferred to VBF account but there was a delay in funds reflection. Thus individual committee projects were anticipated to be established by late December and there has been no additional socio-economic monitoring this year.

E 4: Environmental monitoring

See Annex 1 for monitoring results.

PART F: Impacts

F1: Evidence of outcomes

From the start-up funds the three villages successfully prioritised community projects, through an open and democratic process of consultation. Vanga prioritised construction of an access road, Jimbo prioritised restoration of a water logged nursery

school and Kiwegu construction of furniture for the dispensary along with help for local school girls to tackle period poverty. The projects are yet to be established by late December 2020, with the exception of the last one which was started in December 2020 and illustrated on the cover photograph.

PART G: Payments for Ecosystem services

As this was our first year of operation, generating ex-post credits, there were no sales of Plan Vivo Certificates. Funds for project running and disbursement for community activities came from start-up funding, particularly from the Leonardo DiCaprio Foundation. A total of £3782 was transferred (of which £3582 came from the LDC Foundation) for community co-benefit expenditure (this was sent at the end of 2020 so is mostly yet to be spent).

PART H: Ongoing participation

H1: Recruitment

An assistant project coordinator and two forest scouts were recruited as employees of the organisation.

H2: Project potential

There is interest among the communities and partners involved in the project to include a protected area of seagrass within the project following a similar model to that in the Mikoko Pamoja PDD. However, this is likely to take at least 2 years to develop and Covid-related challenges may delay the initiation of this and any other further expansion. Establishing the restoration area and community woodlots as planned in the PDD will take priority before expansion of the project.

H3: Community participation

A committee of 13 volunteer community members from Vanga, Jimbo and Kiwegu villages governs Vanga Blue Forest project (see meetings held this year in annex 2). Through a participatory approach, the committee is elected democratically biannually during village meetings with close involvement and supervision of the Department of Social Development, among other stakeholders. The committee team comprises four members from Vanga, four from Jimbo and five from Kiwegu villages. With regards to gender, four are women and nine are men.

The committee ensures that the annual work plan is implemented in a timely manner, engages in project activities like monitoring, engages community members in prioritising local development projects through funds obtained from the sale of carbon credits, ensures allocated community funds are used for intended purpose and also addresses arising grievances, In cases where no resolution is arrived at, village heads intervene.

PART I: Project operating costs

I1: Allocation of cost

All expenditure this year was met from start-up funds.

Table I1: Allocation of cost

Expense	Narrative	Amount (ksh): USD in brackets	Contribution from sale of PVCs (Ksh)	Contribution from other sources
Project workers salary (all staff)	-	730000 (6553.37)	-	100%
Expense for committee and office	-	62950 (565.12)	-	100%

Annexes

Annex 1. Monitoring results for issuance request

Vanga Blue Forest operates on four main project areas. Areas 1 (Sii Island) and 2 (Vanga forest mainland) deliver PVC's through avoided deforestation and forest conservation activities. Areas 3 (mangrove plantation) and 4 (rehabilitation area) involve mangrove reforestation and ecosystem rehabilitation within the project site.

Our methodology involves ex-post claims for carbon accumulated, provided we meet key threshold measures of stump counts and absence of clear fell, as summarized in table A1.2

Note on baseline figures

We have two sets of data from which baseline estimates of stump counts and AGB in our permanent monitoring plots can be calculated; a set taken in January 2019 and one in January 2020. These two sets give slightly different estimates (consistent with sampling error):

	Area 1 mean AGB t ha	Area 2 mean AGB t ha	total stump count
23/01/2019	261	75	283
01/03/2020	256	66	158

We have used the most conservative selection of data to provide our baseline i.e. the AGB and stump counts that imply the smallest change from the baseline to the monitoring data taken at 19/11/2020 (the date of our first monitoring report). So baseline for AGB comes from the 2019 data, and that for stumps comes from 01/03/2020.

Table A1.1. Key indicators reporting

Activity area	Forest attribute	Quantity/ha	Measure last year	Baseline	Remarks	Monitoring target met? (Y/N)
1	AGB (t dw)	332	261	261	AGB increased and stumps stayed the same	Y
	Stump count	200	200	200		Y
2	AGB (t dw)	78	75	75	AGB increased and stumps declined	Y
	Stump count	1291	1364	1364		Y
3	Stump count	Not known	Not known	Not known	Unable to start on this area due to Covid 19	N
4	Trajectory towards recovery	Not known	Not known	Not known	Unable to start on this area due to Covid 19	N

Table A1.2. VBF Annual Report Carbon Benefits Summary Table

Variable	Indicators and measures	Outcome
Threshold measures	Stump counts	No significant increase
	Evidence of clear felling	No evidence of clear felling
Avoided degradation area 1	Default measure of 8.65 t CO ₂ ha ⁻¹ yr ⁻¹	199*8.65 = 1721
Avoided degradation area 2	Default measure of 17.3 t CO ₂ ha ⁻¹ yr ⁻¹	247.5*17.3 = 4282
Avoided deforestation ABG areas 1 and 2	5 year satellite information; annual on-ground surveys and threshold measures. 309 t CO ₂ yr ⁻¹ if met.	313 t CO ₂
Avoided deforestation soil carbon areas 1 and 2	5 year satellite information; annual on-ground surveys and threshold measures. 273 t CO ₂ yr ⁻¹ if met.	273t CO ₂
Reforestation area 3	Stump counts and growth increments. Will accumulate 102 t CO ₂ yr ⁻¹	Not measured
Ecosystem rehabilitation area 4	Meeting longer term targets of natural recovery 1 t CO ₂ yr ⁻¹	Not measured
TOTAL (t CO₂)		6,589
Forfeit	Area 3 and 4 not measured hence 5% forfeit, and woodlot yet to be established, hence additional 5%. This 10% subtraction is applied after 5% leakage has been removed.	

Annex 2: Community meeting records

Table X2: Meetings held by VBF 2019/2020

Date	Name of	No. Attended	Remarks
------	---------	--------------	---------

	meeting		
24 th March 2020	Committee	13	<ul style="list-style-type: none"> ● Introduction of the new project coordinator. ● Discussion on status of the office.
11 th May 2020	Committee	13	<ul style="list-style-type: none"> ● Committee consultation on project funds. ● Discussion on appointment of Assistant project coordinator and forest scouts.
15 th Sept 2020	Committee	11	<ul style="list-style-type: none"> ● Planning for the community barazas. ● Introduction of the new Assistant project coordinator and forest scouts to the committee.
18 th Sept 2020	Vanga community baraza	122	<ul style="list-style-type: none"> ● Discussion on community projects for Vanga
19 th Sept 2020	Jimbo community baraza	57	<ul style="list-style-type: none"> ● Discussion on community projects for Jimbo
3rd Nov 2020	Kiwegu community baraza	52	<ul style="list-style-type: none"> ● Discussion on community projects for Kiwegu
26 th Nov 2020	Committee	13	<ul style="list-style-type: none"> ● Discussion of fieldwork findings ● Discussion with scouts on partnering with KFS for regular forest patrols

Annex 3: Copies of receipts on expenditure

HURU INTERNATIONAL KENYA Pin:051308401T			P.O.BOX 45052 - 00100 NAIROBI CELL:0700 659 407, 020 521 7822
Receipt No.	471	Date <u>23/11/2022</u>	
Received from	<u>YANGA BLUE FOREST</u>		
Of P.o. Box			
Being payment of	<u>108 -5pnd pack x 5000</u>		
Amount in words	<u>Fifty four thousand shillings only.</u>		
Kshs <u>54,000</u>	Cash/Cheque No. <u>4</u>	Sign <u>Francis</u>	

KE *** START OF LEGAL RECEIPT ***
 REGISTER NO:KE0000317120157
 A-ONE SUPERMARKET LTD
 P.O BOX 86538-00100 MOMBASA
 TEL NO: 0758581654
 VAT NO: 0107276L

PIN NO:PB51113805J

2103MA 00452291
 USR 00000001
 KRA/EFP/01052013/202578



TILL NO. : 3 CASH SALE # 104
 DATE : 14-NOV-20 TIME : 01:24:PM BRANCH : 01
 ITEM QTY PRICE AMOUNT
 358141 1X 129.00
 CASH BOOK A4 10QUIRE TRIPLE PR 129.00 A

TOTAL 129.00
 CASH 158.00
 CHANGE 21.00
 ITEMS COUNT: 1
 TAXABLE GENERAL RATE-14.00% 113.16
 GENERAL RATE 14.00% 15.84
 TAX TOTAL 15.84

KES : 158.00
 CHG KES: 21.00
 TOTAL ITEMS : ****

PRICES INCLUSIVE OF VAT WHERE APPLICABLE
 YOU WERE SERVED BY: TILL03

VAT CODES ARE V=VATABLE 14% C=ZERO RATED
 O/E=EXEMPT E&OE
 DESIGNED & DEVELOPED BY COMPUYNX: +254203747960

BN NO:0001 Z NO:1137
 C/P/M ACT/ACT. DATE: 29/09/2017
 DATE:14/11/2020 12:32
 *** END OF LEGAL RECEIPT ***
 E103E08270A8CE63BF76C396C605897A3B88D1A8

KE *** START OF LEGAL RECEIPT ***
 REGISTER NO:KE0000317120157
 A-ONE SUPERMARKET LTD
 P.O BOX 86538-00100 MOMBASA
 TEL NO: 0758581654
 VAT NO: 0107276L

PIN NO:PB51113805J

2103MA 00452291
 USR 00000001
 KRA/EFP/01052013/202578



TILL NO. : 3 CASH SALE # 103
 DATE : 14-NOV-20 TIME : 01:24:PM BRANCH : 01

ITEM	QTY	PRICE	AMOUNT
358075 NY CLEAR BAG 1533	4X	29.00	116.00 A
350092 NATRAJ ERASERS 621 FNPE202358	10X	5.00	50.00 A
350285 BAG V25	1X	15.00	15.00 A
350483 SPRING FILE PVC TECH EXECUTIV	20X	45.00	900.00 A
TOTAL		1,881.00	
CARD		1,881.00	

ITEMS COUNT: 4
 TAXABLE GENERAL RATE-14.00% 948.25
 GENERAL RATE 14.00% 132.75
 TAX TOTAL 132.75

***** M-PESA DETAILS *****
 TRANSACTION NO.:0KEBHN706
 SENDER NAME :MWANARUSI MWAFRICA SALIM
 TOTAL ITEMS : ****

PRICES INCLUSIVE OF VAT WHERE APPLICABLE

YOU WERE SERVED BY: TILL03

VAT CODES ARE V=VATABLE 14% C=ZERO RATED

O/E=EXEMPT E&OE

DESIGNED & DEVELOPED BY COMPUYNX: +254203747960

EOM NO:0001 Z NO:1137
 E/F/M ACT./FIS. DATE: 29/09/2017
 DATE:14/11/2020 12:32
 *** END OF LEGAL RECEIPT ***
 879CF7F2FB8B4C03621FD73EDF3CFC41B390005A

P. O. Box 99900 Post Code 80107 MOMBASA. Email: kalamubookstoreltd@gmail.com.kw	CASH SALE		Mobile: 0711-665555 0722-660414
KALAMU BOOK STORE LIMITED MOMBASA BRANCH			
Hospital Street.			
<i>Suppliers of: School Textbooks, Office Stationeries, Printing and Photocopy Services</i>			
No. 516	Date, <u>14/4/14</u>	20.2	
M/s.			
PIN No. P 051885554X			
Qty	PARTICULARS	Shs.	Cts.
1	Box File	200	
	Pencils	100	
5	Sharpeners	50	
		350	
E.O.E			
Goods once sold are not returnable.			

KE ** START OF LEGAL RECEIPT **
 KALAMU BOOK STORE LTD
 P.O. BOX 39980 88187, MSA.
 (TOWN BRANCH)
 TEL: 0711955535
 PIN NO:P051885554X
 0813 #A 00001368
 CRB 20230059
 KRA/ETR/07882814/58257E
 VATABLE SALE 1X350.00 350.00 A
 TAX GENERAL RATE 14.00% 42.98
 TAX TOTAL 42.98
TOTAL 350.00
 CASH 350.00
 EJM NO:0801 Z NO:0148
 E/EM ACT./ETIS. DATE: 29/06/2820
 DATE:14/11/2020 13:42
 *** END OF LEGAL RECEIPT ***
 FD978217845290886F4C
 1A9FA4H68004680L4CFC42

Annex 4: Media

<https://news.mongabay.com/2020/10/in-mangrove-restoration-bespoke-solutions-trump-one-size-fits-all-approach/>

Annex 5: Issuance explanation for 2020 emissions reductions figures

The project originally intended to base its issuance for carbon credits for avoided degradation of mangrove forests in areas 1 and 2 on monitoring data collected from the project site. Measurements were taken of the diameter at breast height (DBH) of trees within the mangrove forests, from which the biomass increment and carbon sequestered can be calculated using an allometric equation developed for the project site:

$$\ln(\text{dry biomass}) = -2.29711 + \ln(\text{DBH})^{2.54528}$$

However, as this was the first year the project was running, the monitoring data was insufficient to base the issuance of credits on, due to high levels of noise and uncertainty within the data. The project will update and improve its monitoring methods and detail this in a technical specification update later in 2021.

For the issuance described in this annual report, the project will use IPCC tier 1 figures given as projected growth in the PDD. The project will be allowed to use IPCC default values until the first verification, at which point the project will need to demonstrate with their own plot measurements, the biomass increment was achieved to a reasonable degree of precision. If credits have been under/over issued at verification, extra credits may be claimed by the project, or there will be a deduction in issuance for the following verification period.